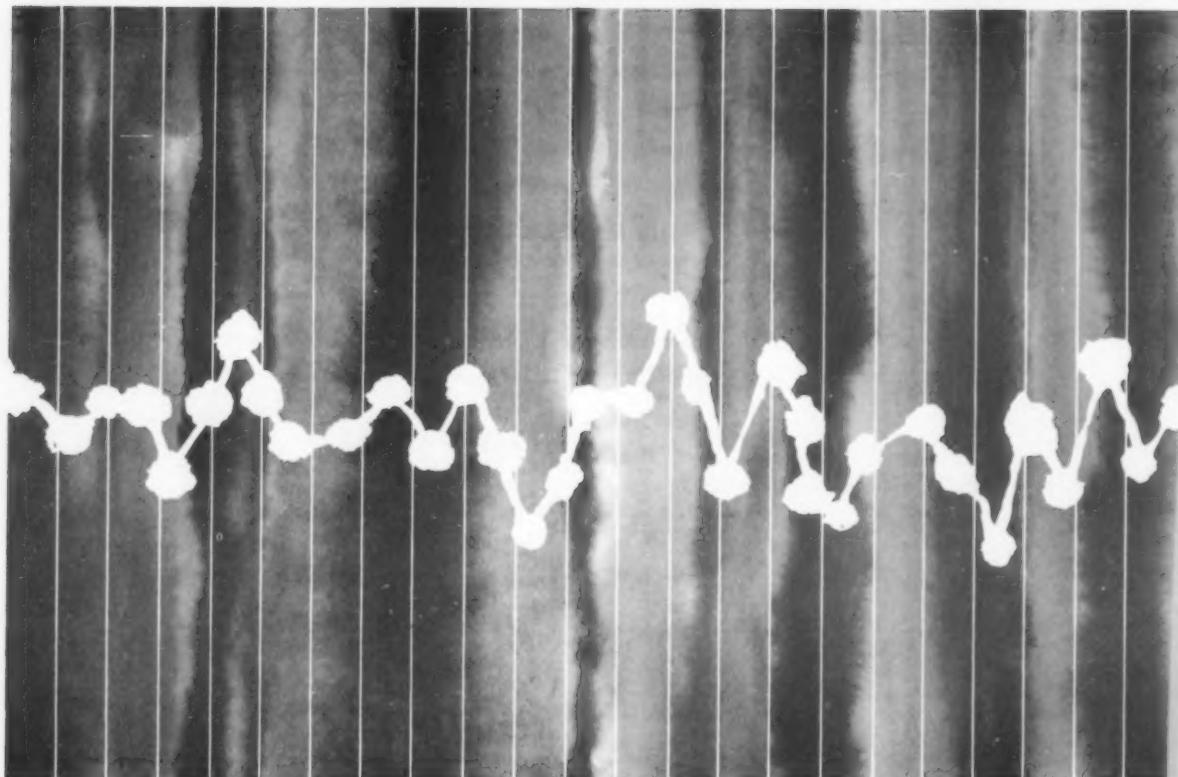


defense indicators

NOVEMBER 1977



U.S. DEPARTMENT OF COMMERCE • BUREAU OF ECONOMIC ANALYSIS

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This report is prepared in the Statistical Indicators Division, Bureau of Economic Analysis. Technical staff and their responsibilities for the publication are—

Barry A. Beckman—Technical supervision and review.

Morton Somer—Selection of seasonal adjustment methods.

Betty F. Tunstall—Collection and compilation of basic data.

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The Secretary of Commerce has determined that the publication of this periodical is necessary in the transaction of the public business required by law of this Department. Use of funds for printing this periodical has been approved by the Director of the Office of Management and Budget through September 1, 1980.

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Courtenay M. Slater, Chief Economist for the Department of Commerce

BUREAU OF ECONOMIC ANALYSIS

George Jaszi, Director

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John E. Cremeans, Associate Director for National Analysis and Projections

Feliks Tamm, Editor

This publication is prepared under the general guidance of an interagency committee under the auspices of the Office of Federal Statistical Policy and Standards.

This committee consists of the following persons:

Charles A. Waite, Chairman,
Bureau of Economic Analysis, Department of
Commerce

James D. August, Board of Governors of the Federal
Reserve System

Rose Glubin, Office of Assistant Secretary of Defense
(Comptroller), Department of Defense

Dale W. Gordon, Bureau of the Census, Department of
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Ronald E. Kutscher, Bureau of Labor Statistics, Department of Labor

David C. Munro, Council of Economic Advisers, Executive
Office of the President

defense indicators

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6 BEA PROJECTS for economic analysis

BUSINESS CONDITIONS DIGEST A monthly report for analyzing eco- nomic fluctuations over a short span of years.

This report brings together many of the economic time series found most useful by business analysts and forecasters. The dominant feature is the cyclical indicators section in which approximately 110 business cycle indicators are each assigned a three-way timing classification according to their cyclical behavior at peaks, at troughs, and at all turns. This section also contains other valuable aids for the analysis of business conditions and prospects, such as composite indexes of leading, coincident, and lagging indicators and various diffusion indexes. A second section contains other important economic measures such as prices, wages, productivity, government activities, U.S. international transactions, and international comparisons.

Data are presented in charts and tables. Appendixes provide historical data, series descriptions, seasonal adjustment factors, and measures of variability. A computer tape containing data for most of the series is available for purchase.

DEFENSE INDICATORS A monthly report for analyzing the current and prospective impact of defense activity on the national economy.

This report brings together the principal time series on defense activities which influence short-term changes in the national economy. These include series on obligations, contracts, orders, shipments, inventories, expenditures, employment, and earnings. The approximately 60 time series included are grouped in accordance with the time at which the activities they measure occur in the defense order-production-delivery process. Charts and analytical tables facilitate interpretation.

LONG TERM ECONOMIC GROWTH A report for the study of economic trends over a long span of years, 1860-1970.

This report has been developed from available statistics to provide a comprehensive, long-range view of the U.S. economy. It is a basic research document for economists, historians, investors, teachers, and students. It brings together under one cover, in meaningful and convenient form, the complete statistical basis for a study of long-term economic trends. A computer tape file of the time series included in the report is available for purchase.

COMPUTER PROGRAMS FOR TIME SERIES ANALYSIS The source statements for FORTRAN IV programs used by BEA in its analysis of time series are available on a single computer tape.

SEASONAL ADJUSTMENT PROGRAMS.—Two variants of the Census computer program for measuring and analyzing seasonal, trading-day, cyclical, and irregular fluctuations. They are particularly useful in analyzing economic fluctuations which take place within a year. The X-11 variant is used for adjusting monthly data and the X-11Q for quarterly data. These programs make additive as well as multiplicative adjustments and compute many summary and analytical measures.

DIFFUSION INDEX PROGRAM.—A computer program for computing diffusion indexes, cumulated diffusion indexes, and summary measures of the properties of each index.

SURVEY OF CURRENT BUSINESS A monthly report for analyzing current economic developments.

This report provides a useful combination of current data for more than 2,500 statistical series and significant articles analyzing economic developments. These data and analyses include such areas as the national income and product accounts, the balance of payments accounts, plant and equipment expenditures, regional personal income, and the input-output accounts.

BUSINESS STATISTICS A biennial reference volume containing stat- istical series reported currently in the *Survey of Current Business*.

This report provides historical data back to 1947 for nearly 2,500 time series. The series are accompanied by concise descriptions as to their composition, methods of compilation, comparability, revisions, and availability. Also listed are the names and addresses of organizations which provide the basic data for the series.

Introduction

The purpose of this monthly report is to bring together the principal time series on defense activity which influence short-term changes in the national economy. These include series on obligations, contracts, orders, shipments, inventories, expenditures, employment, and earnings. Most are monthly but a few quarterly series are included. The series numbers used are for identification purposes only and do not reflect relationships or order.

Classification of Series

Chart 1 compares Government purchases of goods and services for national defense with total gross national product. GNP is the market value of the final output of goods and services produced by the Nation's economy and represents a very broad measure of aggregate economic activity. In addition to national defense purchases, it includes Federal Government purchases of goods and services for nondefense purposes, State and local government purchases, personal consumption expenditures, gross private domestic investment, and net exports of goods and services. Chart 1 also presents national defense purchases as a percent of gross national product and, for both series, changes from the previous quarter.

A related group of series is shown in Chart 4, "Defense Related Balance of Payments Components." These series show the effects of defense-related economic activity on the balance of payments accounts.

The remaining series are grouped in accordance with the time at which the activities they measure occur within the defense order-production-delivery process. Those series measuring activities that usually precede production, such as new orders placed with defense products industries and contract awards, are presented in Chart 2, "Advance Indicators of Defense Activity." Chart 3, "Intermediate and Final Indicators of Defense Activity," presents series that measure activities which tend to move at the same time as production (such as employment) and activities which usually follow production (such as shipments).

Series Included

Following is a list of the series as they appear in charts 1, 2, 3, and 4 (the source agencies are abbreviated in parentheses; detailed lists of sources for charts 1, 2, and 3 appeared as appendixes to the August and October 1968 issues of this report).

Gross National Product and National Defense Purchases

Gross national product (BEA)
Federal Government purchases of goods and services, national defense (BEA)
National defense purchases as a percent of gross national product (BEA)
Gross national product, changes from previous quarter (BEA)
National defense purchases, changes from previous quarter (BEA)

Advance Indicators of Defense Activity

Defense Department gross obligations incurred, total (DOD)
Defense Department gross obligations incurred, procurement (DOD)
Gross obligations incurred outside the Government for national defense (Treasury)

Defense Department military prime contract awards for work performed in the United States (DOD)

Defense Department gross unpaid obligations outstanding (DOD)

Manufacturers' new orders (Census):

Defense products industries

Defense products

Manufacturers' new orders from the U.S. Government, aerospace industries (Census):

Average weekly overtime hours, production workers, defense products industries (BLS)

Accession rate, defense products industries (BLS)

Layoff rate, defense products industries (BLS)

Intermediate and Final Indicators of Defense Activity

Output of defense and space equipment (FRB)

Manufacturers' inventories (Census):

Defense products industries

Defense products

Manufacturers' unfilled orders (Census):

Defense products industries

Defense products

Manufacturers' unfilled orders from the U.S. Government, aerospace industries (Census)

Defense Department progress payments outstanding (DOD)

Employment in defense products industries, total (BLS)

Employment in defense products industries, production workers (BLS)

Index of aggregate weekly hours, defense products industries (BLS)

Index of aggregate weekly payrolls, production workers, defense products industries (BLS)

Defense Department personnel, military, active duty (DOD)

Defense Department personnel, civilian, direct hire employment (DOD)

Defense Department net outlays, total, military functions and military assistance (DOD)

Defense Department net outlays, procurement (DOD)

Budget outlays for the national defense function (Treasury)

Defense Department personnel compensation (DOD)

Manufacturers' shipments (Census):

Defense products industries

Defense products

Manufacturers' shipments to the U.S. Government, aerospace industries (Census)

Ratio, manufacturers' unfilled orders to shipments (Census):

Defense products industries

Defense products

Ratio, manufacturers' inventories to shipments (Census):

Defense products industries

Defense products

Defense-Related Balance of Payments Components

Transfers under U.S. military agency sales contracts—exports (BEA)

Direct defense expenditures—imports (BEA)

U.S. Government cash receipts associated with military sales contracts (BEA)

Some additional data are included in the tables though not presented in the charts. These include Defense Department military prime contract awards by procurement category (e.g., for aircraft, missiles and space systems, ships, weapons, and ammunitions), the operations component of Defense Department

gross obligations incurred, gross unpaid obligations outstanding, and net outlays and the procurement component of gross unpaid obligations outstanding.

Description of Basic Data

The Department of Defense compiles statistics on obligations, contract awards, personnel compensation, and outlays. The DOD obligations and outlays data are based on the Defense Department's monthly *Status of Funds* report which is developed from accounting data and is designed to provide information on the total status of Defense Department financing. Accounts included in this report are aggregated by appropriation categories including personnel costs, operations and maintenance, procurement, research and development, and construction. The *Status of Funds* report duplicates some obligations. That is, obligations of one government unit to another unit are not netted out.

The Defense Department's *Contract Awards* report covers the awarding of procurement contracts. These include obligations for operating and maintenance supplies, equipment and services, research and development, and construction in addition to the obligations for items that constitute the fiscal "procurement" category. The statistics are aggregated by commodity categories including aircraft, missile and space systems, ships, weapons, ammunition, electronics and communication equipment, fuels, and textiles and clothing. The *Contract Awards* report includes procurement for NASA, other nondefense agencies, and the Foreign Military Sales Program which are not included in the *Status of Funds* report.

The Census quarterly new orders, unfilled orders and shipments series for "aerospace industries" are based on reports of companies classified into the following industry categories:

Industry	SIC Code
Aircraft and parts	372
Guided missiles and space vehicles, completely assembled ..	1925

The Census and BLS data for "defense products industries" presented in this report cover companies and establishments classified into the following industry categories in accordance with the *Standard Industrial Classification Manual, 1967* edition, Executive Office of the President, Bureau of the Budget:

Industry	SIC Code
Ordnance and accessories	19
Communication equipment	368
Aircraft and parts	372

Establishments reporting to the BLS are classified into industries on the basis of their principal product or activity as determined from information on annual sales volume, which is collected each year on a supplement to the monthly report. The entire employment of an establishment making more than one product or engaging in more than one activity is included under the industry accounting for the largest percentage of the annual sales of that establishment.

The Census Bureau's monthly survey is based primarily on reports at the company level and the monthly estimates are benchmarked to the establishment data from the *Annual Survey*

¹An establishment is a single physical location where business is conducted (e.g., a plant). A company often includes more than one establishment.

of Manufactures. Also, many of the large diversified companies file separate divisional reports monthly. Although the reports in the survey are also classified according to their principal product or activity, this difference in the organizational level from which reports are received results in firms being classified into different industries in the BLS and Census surveys and, consequently, limits somewhat the comparability of the data collected by these agencies. However, as we know from past studies in this area, some differences in industrial classification between BLS and Census data would remain even if reports came from the same organizational levels.

Both the Census and the BLS data include a significant amount of nondefense activities carried on by companies and establishments classified in the above industries. For example, the data cover the production of commercial as well as military aircraft. On the other hand, they exclude significant amounts of defense work carried on by companies and establishments classified in industries other than those listed above (e.g., the manufacture of military uniforms and the shipbuilding industry).²

Census data for "defense products" are based on separate reports on defense work filed by large defense contractors in the ordnance, communications, complete aircraft, aircraft parts, and shipbuilding industries. Thus, they differ from the "defense products industries" data in that they include defense activity in the shipbuilding industry and exclude nondefense work in the other industries covered. Defense products data cover work for the Department of Defense and exclude contracts for the National Aeronautics and Space Administration and the Atomic Energy Commission.

The DOD data are not strictly comparable in coverage with either the BLS or the Census data since the Defense Department figures (1) cover products of industries not included in the defense products category; (2) generally do not include non-defense activities (except that some series, such as contract awards, include activities by the Department of Defense on behalf of nondefense agencies); and (3) do not cover intermediate activities such as those related to subcontracting and supplying of parts. Thus, the Census Bureau data for manufacturers' new orders and shipments of defense products industries, for example, differ in coverage from the DOD contract awards and net outlays series.

The Department of Defense data are not comparable with Federal Government purchases of goods and services for national defense or the Treasury Department obligations and outlays data since the BEA and Treasury data cover defense-related activities of other agencies such as the Atomic Energy Commission, the Selective Service System, and the Office of Emergency Planning.

Projects to improve the comparability of the data collected by the Bureau of the Census, the Bureau of Labor Statistics, and the Department of Defense and to improve the separation of defense and nondefense activity for the Census and BLS data are being undertaken by the statistical agencies under the leadership of the Interagency Committee mentioned earlier in this report.

²See the Bureau of the Census publication *Shipments of Defense-Oriented Industries, Current Industrial Reports, Series MA-176*, for annual estimates of shipments by industry to the Department of Defense, the National Aeronautics and Space Administration, and the Atomic Energy Commission. Included also are industries not covered by the "defense products industries" category.

Variability of Data

Seasonal variations dominate the movements of many time series, and adjustments for average seasonal fluctuations are often necessary to bring out the underlying trends of the series. These seasonal adjustments allow for the effects of repetitive intrayear variations resulting primarily from normal differences in weather conditions and from various institutional arrangements. An additional adjustment is sometimes necessary for series which contain considerable variation resulting from the number of working or trading days in each month. As used in this report, the term "seasonal adjustment" includes trading-day adjustments where they have been made.

Most of the series in this report are shown in seasonally adjusted form. For Defense Department and BLS series, unadjusted data are also shown since they are not readily available elsewhere. Current seasonal adjustment factors are shown in appendix A.

The effect of seasonal adjustment in reducing the month-to-month variation in the data can be seen in appendix B. There, the first two columns show the average month-to-month percent change (without regard to sign) in the data before and after seasonal adjustment. Some series still show very irregular month-to-month movements after adjustment for seasonal variation. The measures in appendix B also indicate the month-to-month variation in the irregular and short-term trend components of the series. For many series, irregular movements tend to dominate 1- or 2-month comparisons, and the underlying short-term trend becomes dominant in comparisons over longer spans. The "months for cyclical dominance" (MCD) measure estimates the span of months required for the short-term trend to dominate the irregular component. Series with an MCD of 4 or more are supplemented with a moving average (with the

number of terms equal to MCD) in the charts. Data for these moving averages are listed in the basic data tables.

Guide to Charts and Tables

Most series are plotted on a standard ratio scale so that equal percent changes cover the same vertical distance. For these series, an increase of 100 percent covers approximately 1 inch. Arithmetic scales are used for series with zero or negative data, series which could approach zero (e.g., average overtime hours and layoff rate), and series expressed in percent.

In general, monthly data are plotted with a solid line and quarterly data are represented by a solid line with quarterly plot points. Quarterly series are also identified with a "Q" after their titles. For series which include a moving average, a dashed line is used for the actual monthly data and a solid line for the moving average. (The moving average values are centered within the span of months they are computed from.) Exceptions to this scheme may be necessary for special situations. Data apply to the whole period except for series designated "EOM" (end of month) or "EOQ" (end of quarter). The number in the box at the right of each series indicates the latest month (Arabic) or quarter (Roman) plotted. Parallel lines across a series indicate a break in continuity (e.g., data not available or change in series definition).

Tables 1, 2, 3, and 4 present current data for the series shown in the charts, including the moving averages. They also include unadjusted data for some series and data for related series which are not plotted. Table A summarizes the most recent data and percent changes for many of the series in the report. Historical data are shown on an intermittent basis in appendix C. (The index indicates the appropriate issue for each series.)

New Features and Changes for This Issue

1. Current seasonal adjustment factors, which are based on historical data patterns, are inaccurate for some defense series because of the change in the Government's fiscal year, and suitable seasonal factors cannot be established at this time. For this reason, seasonally adjusted data are not shown for Defense Department gross obligations incurred (series 617, 619, and 621) and Defense Department military prime contract awards, total (series 625) for the period since May 1977, nor are they shown for the components of military prime contract awards (series 626, 627, 629-637, and 640) for the period since the first quarter 1977. For these series, unadjusted data are shown in the data tables and seasonal adjustment factors on the old basis are shown in appendix A.

2. Appendix C contains historical data for series 617, 619, 621, 623, and 683.

The December issue of *DEFENSE INDICATORS* is scheduled for release on December 30.

Table A. Summary of Recent Data and Current Percent Changes for Principal Defense Indicators

(Preliminary and revised figures are not identified here but the user may consult tables 1, 2, 3, and 4 where such identification is given)

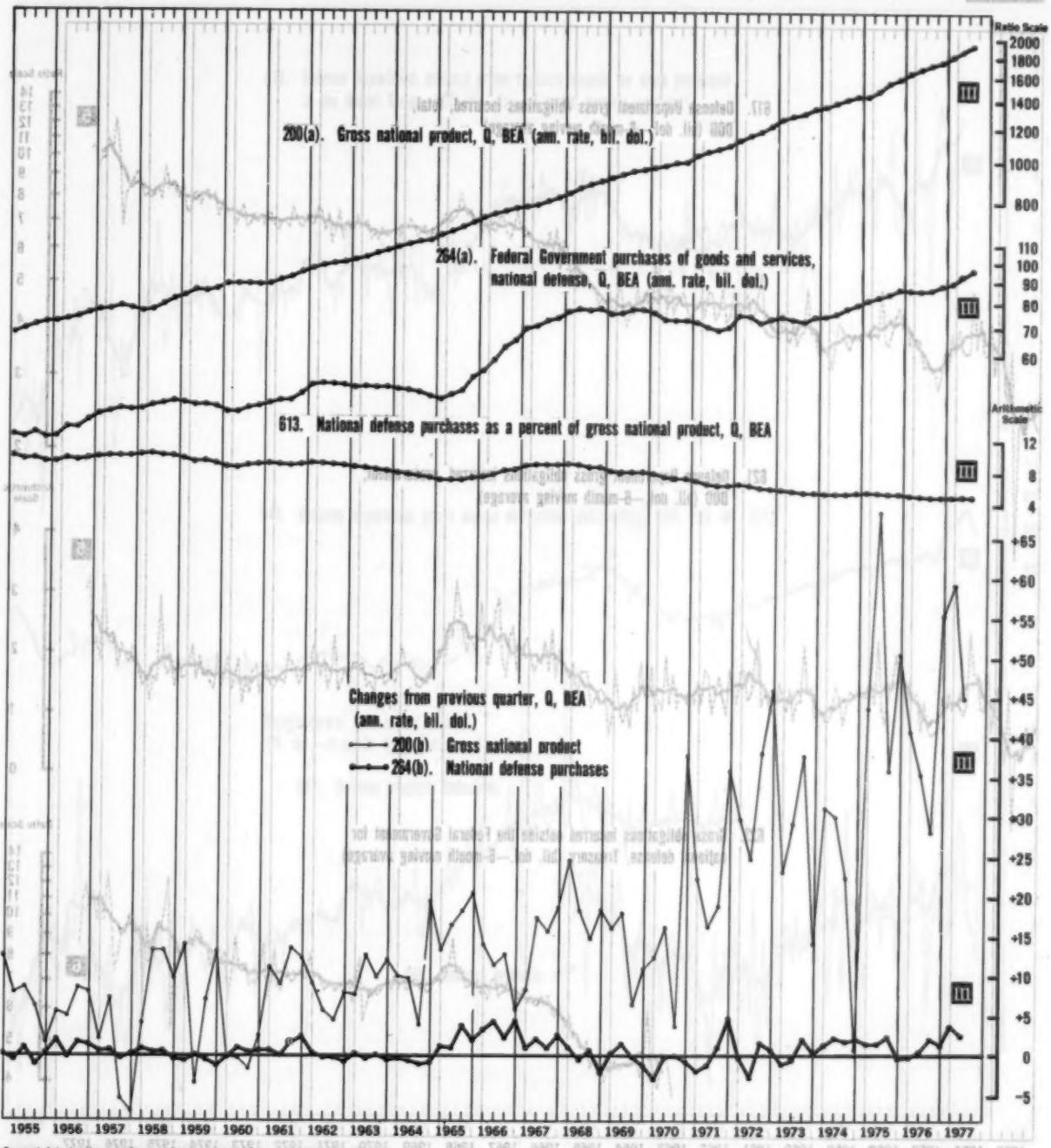
Series title	Unit of measure	Basic data									Percent change				Series number
		Average		1st Q 1976	2d Q 1977	3d Q 1977	Aug. 1977	Sept. 1977	Oct. 1977	Aug. '77 to Sept. '77	Sept. '77 to Oct. '77	1st Q '77 to 2d Q '77	2d Q '77 to 3d Q '77		
		1976	1977	1977	1977	1977	1977	1977	1977	1977	1977	1977	1977	1977	
GROSS NATIONAL PRODUCT AND NATIONAL DEFENSE PURCHASES															
200. Gross national product (BEA)	Ann. rate, bil. dol.	1528.8	1706.5	1810.8	1869.9	1914.9	3.3	2.4	200
284. Federal Government purchases of goods and services, national defense (BEA)	do	83.9	86.8	89.7	93.4	96.0	4.1	2.8	264
613. National defense purchases as a percent of GNP (BEA) ¹	Percent	5.5	5.1	5.0	5.0	5.0	0.0	0.0	613
ADVANCE INDICATORS OF DEFENSE ACTIVITY															
Defense Dept. gross obligations incurred (DOD):	Ann. rate, bil. dol.														
617. Total	98.5	109.9	117.1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	617
621. Procurement	do	20.4	24.6	24.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	621
623. Gross obligations incurred outside the Federal Government for national defense (Treasury)	do	104.1	117.9	126.3	124.9	NA	NA	NA	NA	NA	NA	NA	-1.1	NA	623
625. Defense Department military prime contract awards for work performed in the U.S. (DOD)	do	43.3	50.1	51.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	625
643. Defense Department gross unpaid obligations outstanding (DOD)	Bil. dol., end of period	41.3	50.1	52.4	53.3	NA	48.8	NA	NA	NA	NA	NA	1.7	NA	643
648. Mfrs.' new orders, defense products (Census)	Ann. rate, bil. dol.	25.2	29.5	24.2	36.3	22.2	24.0	19.6	51.8	-18.3	164.3	50.0	-38.8	648	
650. Manufacturers' new orders from the U.S. Government, aerospace industries (Census)	do	18.3	21.2	18.0	25.7	NA	42.8	NA	650
653. Average weekly overtime hours, production workers, defense products industries (BLS) ¹	Hours	2.5	2.5	2.8	3.0	2.8	2.6	2.8	NA	0.2	NA	0.2	-0.2	653	
654. Accruals, defense products industries (BLS) ¹	Number per 100 employees	1.4	1.6	2.3	2.2	NA	2.0	NA	NA	NA	NA	NA	-0.1	NA	654
655. Layoff, defense products industries (BLS) ¹	do	1.2	0.7	0.5	0.4	NA	0.5	NA	NA	NA	NA	NA	-0.1	NA	655
INTERMEDIATE AND FINAL INDICATORS OF DEFENSE ACTIVITY															
657. Output of defense and space equipment (FRB)	1967=100	80.0	78.4	78.3	80.1	80.7	80.8	80.8	78.4	0.0	-3.0	2.3	0.7	657	
659. Mfrs.' inventories, defense products (Census)	Bil. dol., end of period	6.6	6.6	6.5	6.9	6.9	6.9	6.9	NA	0.0	NA	6.2	0.0	659	
661. Mfrs.' unfilled orders, defense products (Census)	do	29.2	32.2	30.4	31.9	29.8	30.7	29.8	31.6	-2.9	6.0	4.9	-6.6	661	
664. Manufacturers' unfilled orders from the U.S. Government, aerospace industries (Census)	do	21.8	21.7	23.0	24.3	NA	...	...	...	...	...	5.7	NA	664
668. Defense Department progress payments outstanding (DOD) ⁽²⁾	do	11.3	8.5	8.5	8.7	NA	2.4	NA	668
Employment in defense products industries (BLS):	Thousands														
670. Total	1,118	1,064	1,066	1,081	1,087	1,084	1,084	NA	0.0	NA	1.4	0.6	670		
671. Production workers	do	570	531	529	540	546	545	546	NA	0.2	NA	2.1	1.1	671	
673. Index of aggregate weekly hours, defense products industries (BLS)	1967=100	66.0	62.8	63.4	64.4	64.8	64.7	64.5	NA	-0.3	NA	1.6	0.6	673	
675. Index of aggregate weekly payroll, production workers, defense products industries (BLS)	do	100.5	101.2	107.2	112.6	115.3	114.5	116.2	NA	1.5	NA	5.0	2.4	675	
Defense Department personnel (DOD):	Thousands, end of period														
677. Total, military, active duty	2,084	2,072	2,075	2,075	2,073	2,073	2,073	2,072	0.1	-0.1	0.0	0.0	0.0	677	
678. Civilian, direct hire employment	do	1,028	995	995	1,009	982	998	982	NA	-1.6	NA	1.4	-2.7	678	
Defense Department net outlays (DOD):	Ann. rate, bil. dol.														
680. Total, military functions and military assistance	88.5	88.3	95.6	93.9	105.1	100.4	107.3	97.1	6.9	-9.5	-1.8	11.9	680		
682. Procurement	do	16.2	16.4	18.5	17.4	18.8	18.6	16.7	18.0	-10.2	7.8	-5.9	8.0	682	
683. Budget outlays for the national defense function (Treasury)	do	92.5	89.1	96.7	95.2	107.7	100.4	108.9	99.5	8.5	-8.6	-1.6	13.1	683	
686. Defense Dept. personnel compensation (DOD)	do	34.6	35.5	36.1	37.2	37.4	37.3	37.9	NA	1.6	NA	3.0	0.5	685	
688. Mfrs.' shipments, defense products (Census)	do	23.7	26.5	31.5	30.5	30.6	30.0	30.8	29.5	2.7	-4.2	-3.2	0.3	688	
689. Manufacturers' shipments to the U.S. Government, aerospace industries (Census)	do	17.3	19.1	21.1	20.2	NA	...	...	...	...	...	-4.3	NA	689
691. Ratio, manufacturers' unfilled orders to shipments, defense products (Census)	Ratio	14.5	13.5	11.8	12.5	12.0	12.3	11.6	12.9	-5.7	11.2	5.9	-4.0	691	
693. Ratio, manufacturers' inventories to shipments, defense products (Census)	do	3.1	3.0	2.5	2.6	2.7	2.8	2.7	NA	-3.6	NA	4.0	3.8	693	
DEFENSE-RELATED BALANCE OF PAYMENTS COMPONENTS															
540. Transfers under U.S. military agency sales contracts—exports (BEA) ³	Ann. rate, mil. dol.	3,919	5,213	7,380	7,468	NA	...	...	...	...	...	88	NA	546
547. Direct defense expenditures—imports (BEA) ¹ ⁽²⁾	do	4,795	4,847	5,316	5,612	NA	...	...	...	...	...	296	NA	547
696. U.S. Government cash receipts associated with military sales contracts (BEA) ¹ ⁽²⁾	do	4,587	8,213	7,968	7,540	NA	...	...	...	...	...	-428	NA	696

NOTE: This table is presented as a convenient summary of the current data for many of the indicators in this report. In many cases, data shown here are rounded to fewer digits or are in different units than those shown in tables 1, 2, 3, and 4. Where available, annual figures are those published by the source agencies; otherwise they (and the quarterly figures for monthly series) are averages or totals of the data as shown in the data tables. Series are seasonally adjusted except for those indicated by ⁽²⁾ which appear to contain no seasonal movement.

NA = not available.

¹Differences rather than percent changes are shown for this series.

Gross National Product and National Defense Purchases



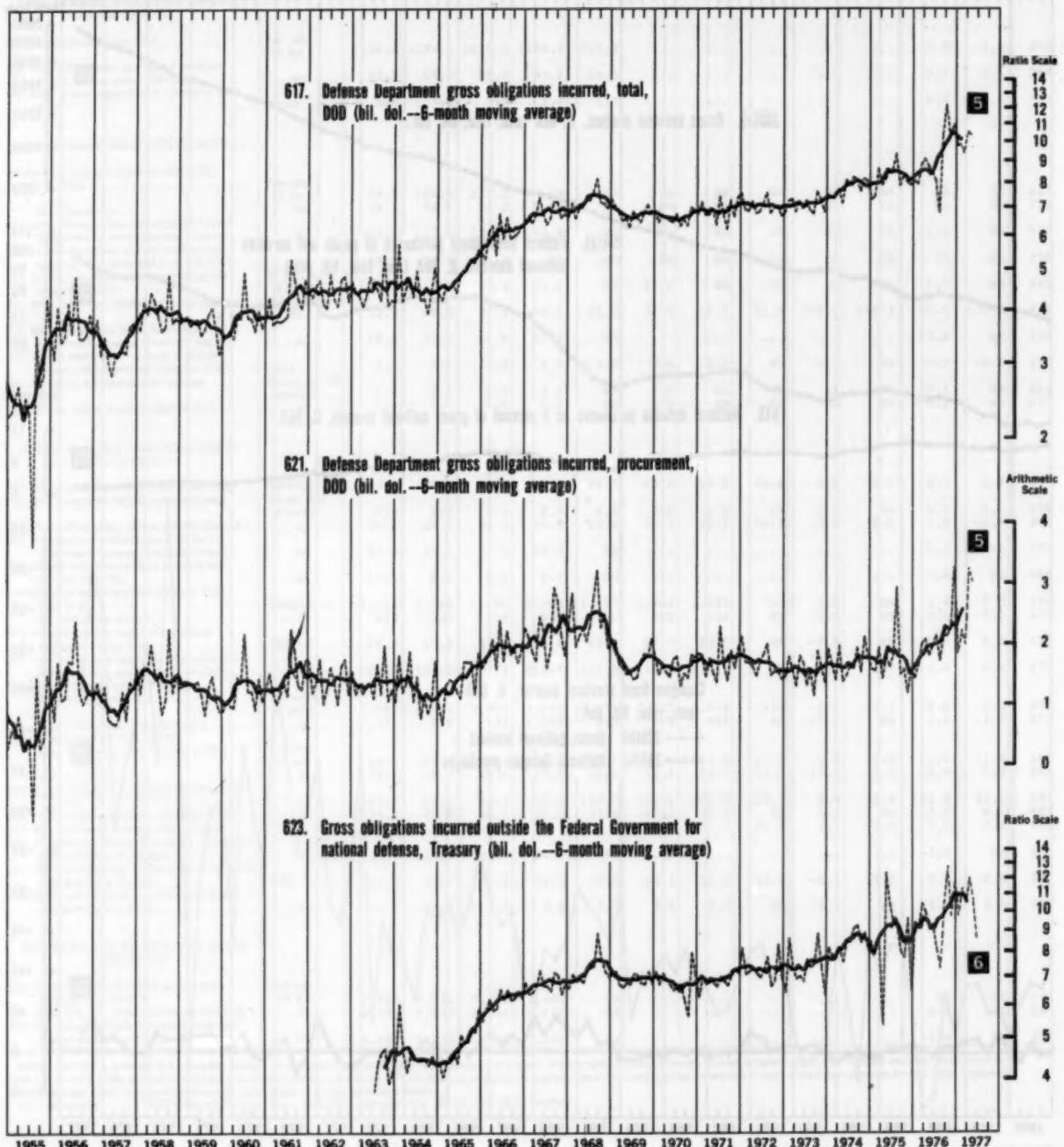
Current data for these series are shown on page 14.

Source: U.S. Department of Commerce, Bureau of Economic Analysis.

CHART

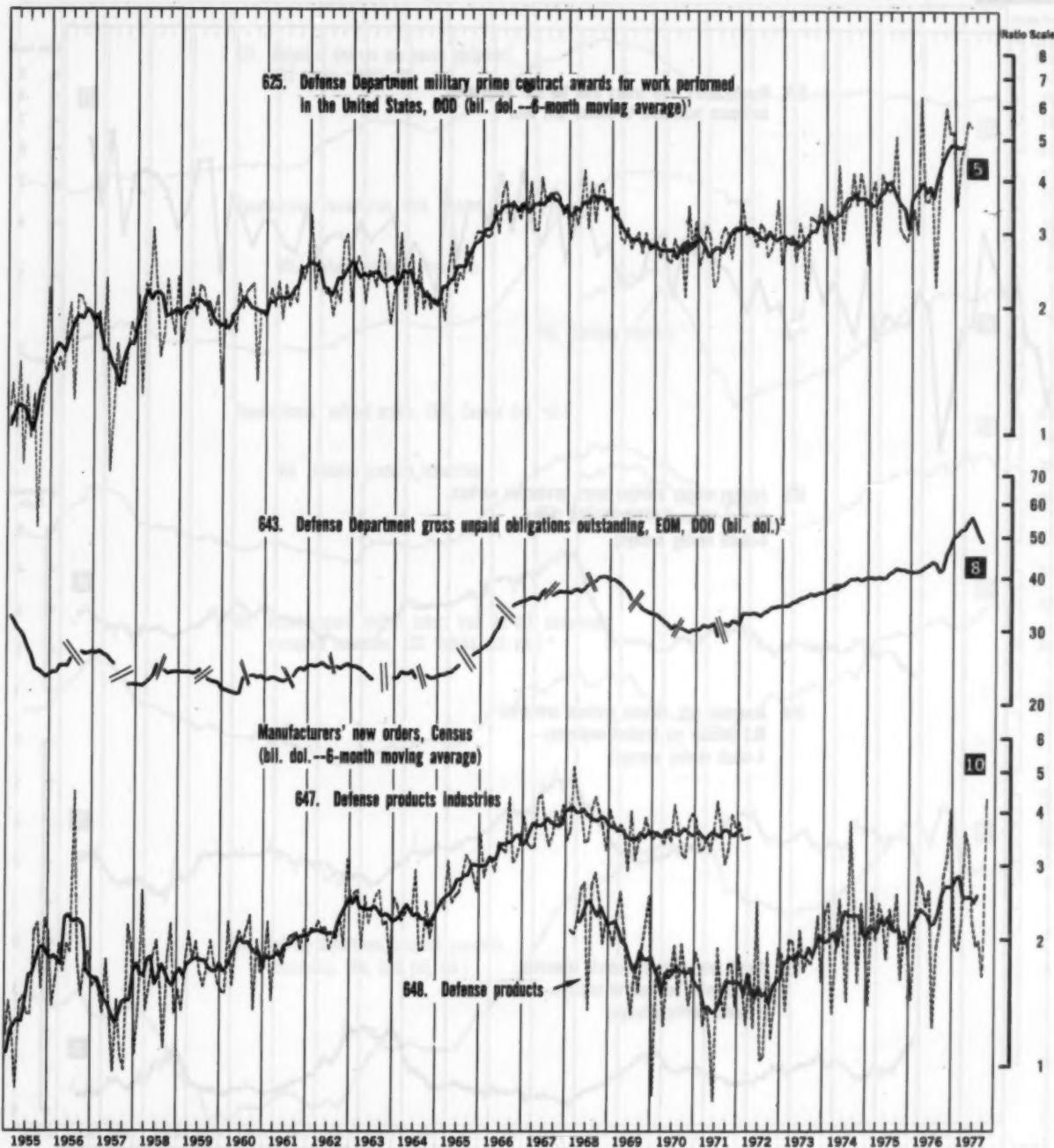
2

Advance Indicators of Defense Activity



Current data for these series are shown on pages 15 and 16.

Advance Indicators of Defense Activity--Continued

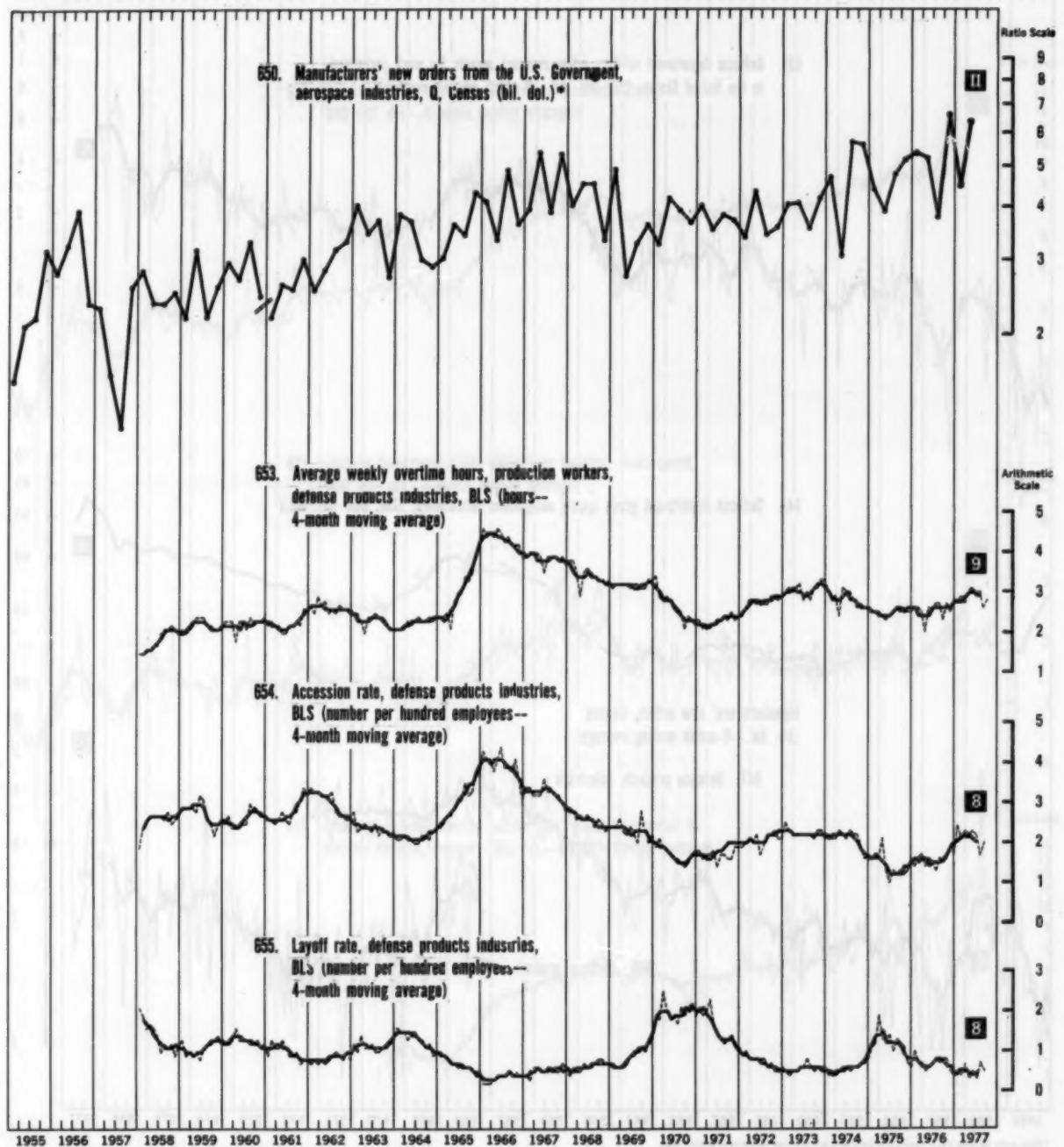
¹ Data prior to July 1955 exclude orders written to other Government agencies.² Data for the following months not available: July of 1966-71; August of 1966-67 and 1963-66; September of 1967, 1963, and 1965; and October and November of 1963.

Current data for these series are shown on pages 16 and 20.

CHART

2

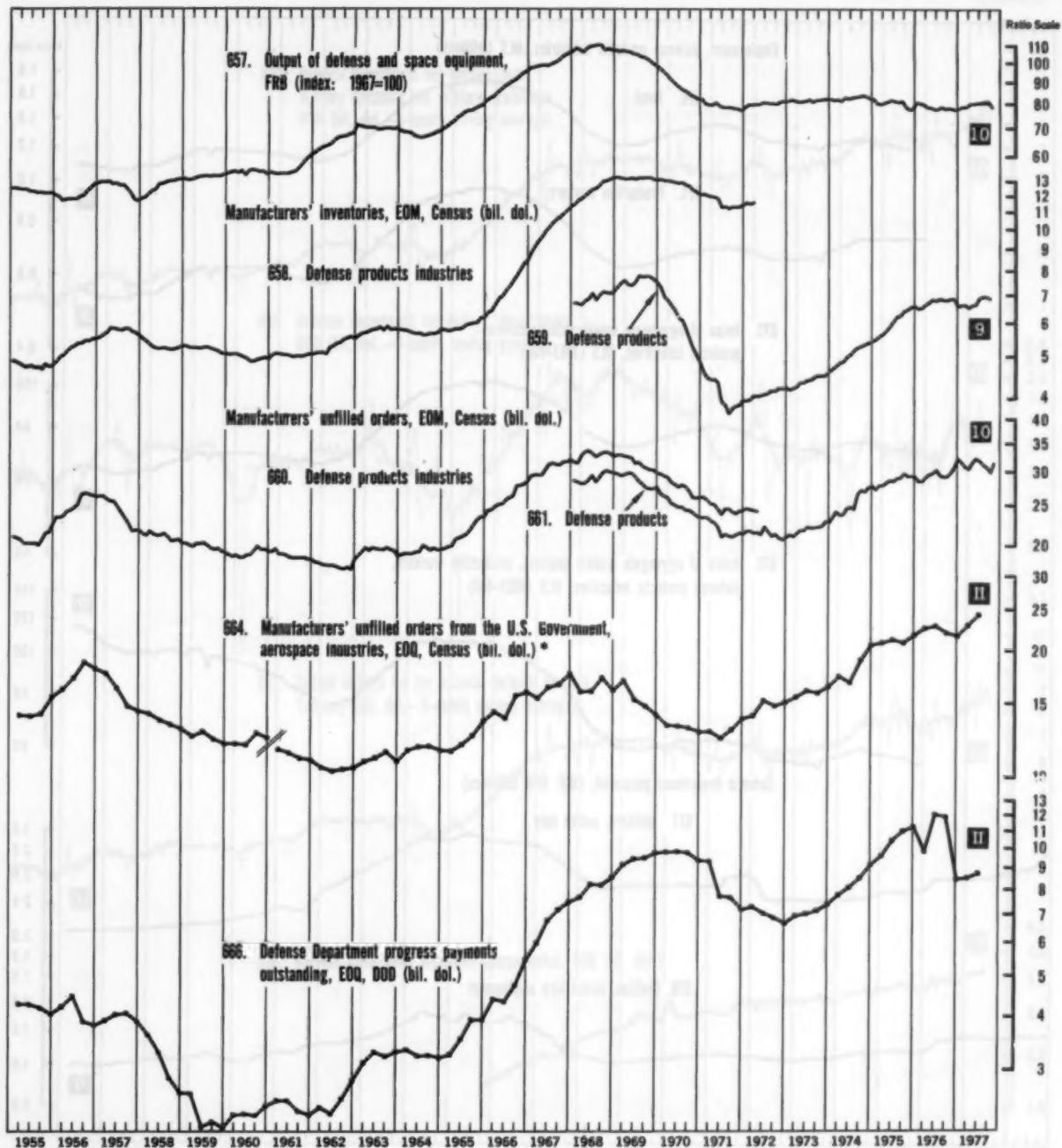
Advance Indicators of Defense Activity--Continued



*Data prior to 1961 include orders from non-Government customers.

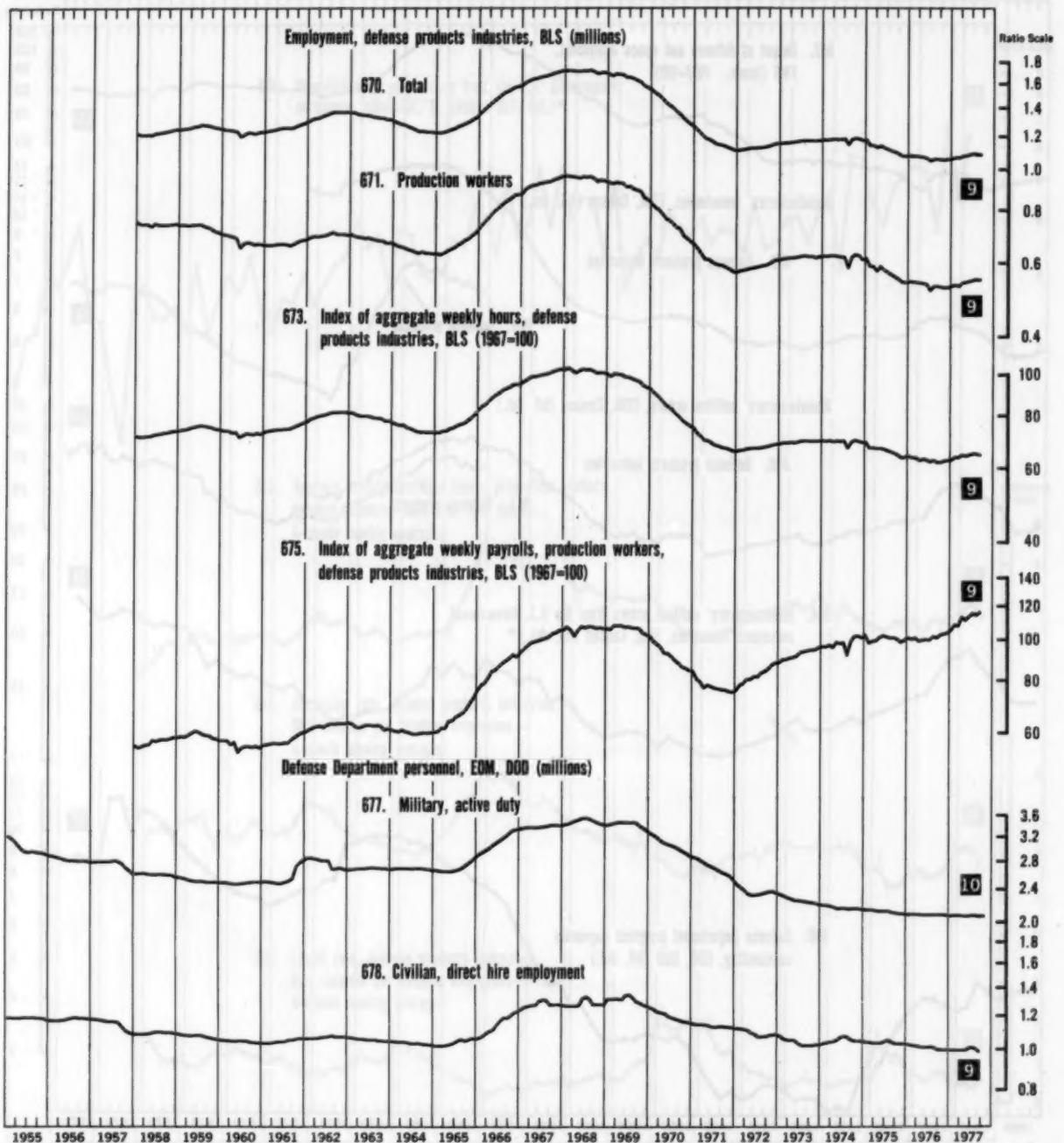
Current data for these series are shown on pages 20 and 21.

Intermediate and Final Indicators of Defense Activity



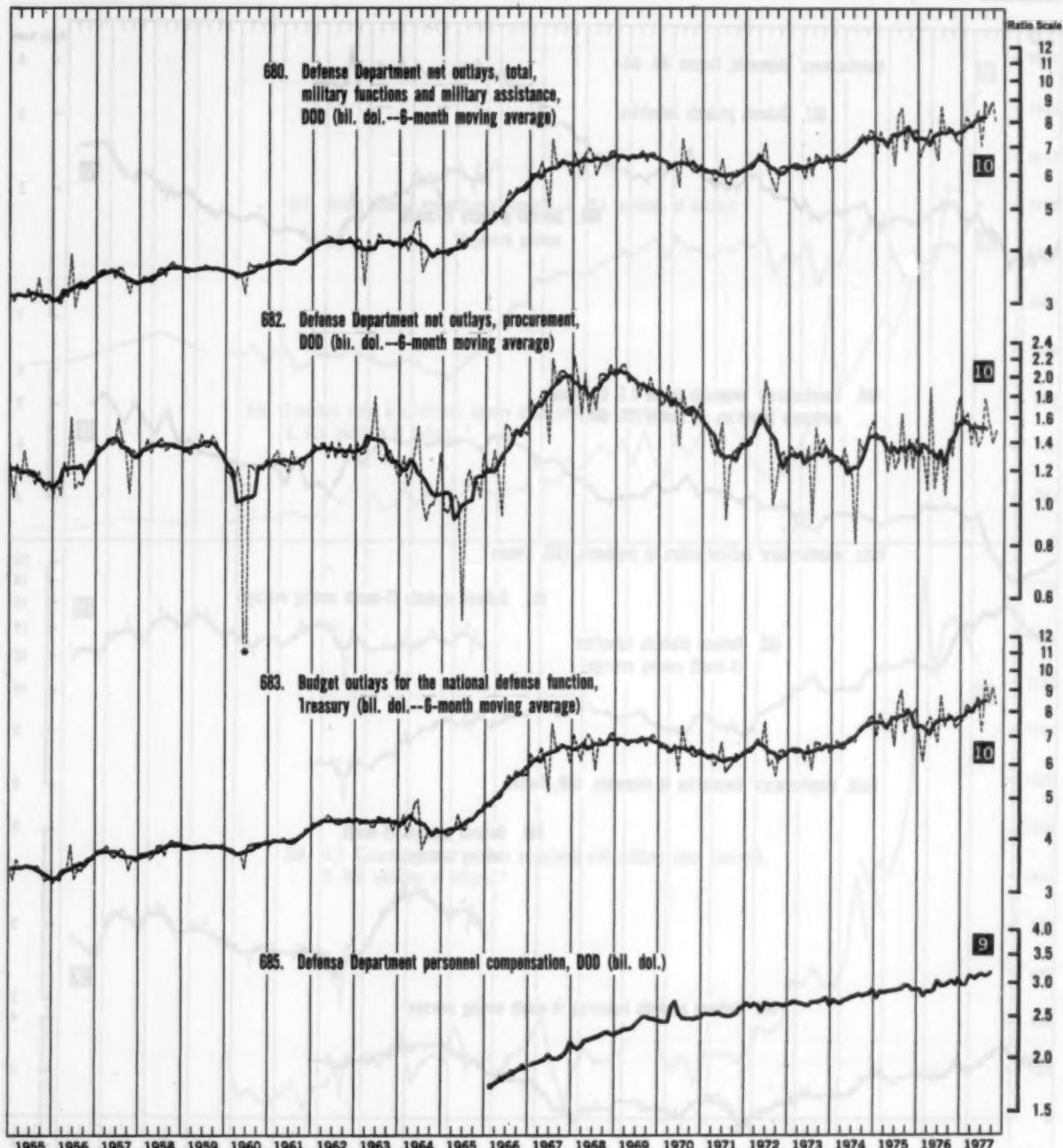
*Data prior to 1961 include orders from non-Government customers.
Current data for these series are shown on page 22.

CHART

3**Intermediate and Final Indicators of Defense Activity--Continued**

Current data for these series are shown on pages 22, 23, and 24.

Intermediate and Final Indicators of Defense Activity--Continued

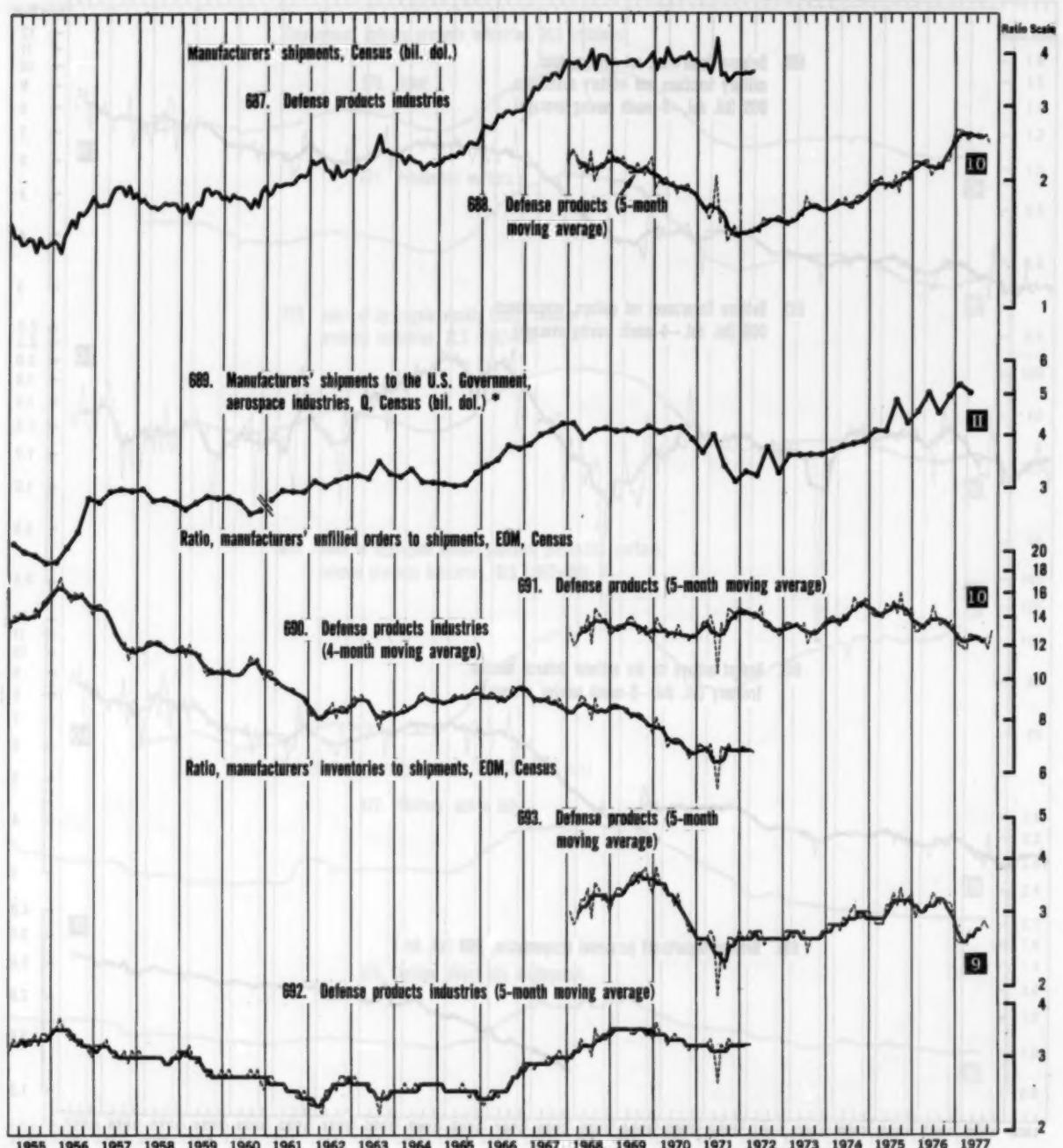


*Net expenditures for procurement, June 1960--\$245 million.
Current data for these series are shown on pages 24 and 25.

CHART

3

Intermediate and Final Indicators of Defense Activity--Continued



*Data prior to 1961 include shipments to non-Government customers.
Current data for these series are shown on page 26.

Defense-Related Balance of Payments Components



*See footnotes 1 and 2 on page 27.
Current data for these series are shown on page 27.

defense indicators

TABLE

1

Gross National Product and National Defense Purchases

Year and quarter	200(a). Gross national product, BEA*	264(a). Federal Govern- ment purchases of goods and services, national defense, BEA*	613. National defense purchases as a percent of gross national product, BEA*	200(b). Change in gross national product, BEA*	264(b). Change in Federal Government purchases of goods and services, national defense, BEA*
	(Ann. rate, bil. dol.)	(Ann. rate, bil. dol.)	(Percent)	(Ann. rate, bil. dol.)	(Ann. rate, bil. dol.)
1973					
First quarter.....	1,265.3	74.1	5.9	45.9	0.8
Second quarter.....	1,288.4	73.1	5.7	23.1	-1.0
Third quarter.....	1,317.5	72.5	5.5	29.1	-0.6
Fourth quarter.....	1,355.1	74.4	5.5	37.6	1.9
1974					
First quarter.....	1,369.0	74.6	5.4	13.9	0.2
Second quarter.....	1,400.1	75.8	5.4	31.1	1.2
Third quarter.....	1,430.1	77.9	5.4	30.0	2.1
Fourth quarter.....	1,452.4	79.6	5.5	22.3	1.7
1975					
First quarter.....	1,453.0	81.6	5.6	0.6	2.0
Second quarter.....	1,496.6	83.0	5.5	43.6	1.4
Third quarter.....	1,564.9	84.4	5.4	68.3	1.4
Fourth quarter.....	1,600.7	86.7	5.4	35.8	2.3
1976					
First quarter.....	1,651.2	86.3	5.2	50.5	-0.4
Second quarter.....	1,691.9	86.0	5.1	40.7	-0.3
Third quarter.....	1,727.3	86.4	5.0	35.4	0.4
Fourth quarter.....	1,755.4	88.4	5.0	28.1	2.0
1977					
First quarter.....	1,810.8	89.7	5.0	55.4	1.3
Second quarter.....	1,869.9	93.4	5.0	59.1	3.7
Third quarter.....	1,914.9	96.0	5.0	45.0	2.6

Note: All data on this page are seasonally adjusted. NA=not available; p=preliminary; r=revised; e=estimated. *Indicates series shown in charts. (See page 5.)

Advance Indicators of Defense Activity

Year and month	Defense Department gross obligations incurred, DOD							
	617. Total			619. Operations		621. Procurement		
	Not seasonally adjusted	Seasonally adjusted*	Moving average of seasonally adjusted data— 6-month*	Not seasonally adjusted	Seasonally adjusted	Not seasonally adjusted	Seasonally adjusted*	Moving average of seasonally adjusted data— 6-month*
	(Mil. dol.)	(Mil. dol.)	(Mil. dol.)	(Mil. dol.)	(Mil. dol.)	(Mil. dol.)	(Mil. dol.)	(Mil. dol.)
1975								
January	8,252	7,341	7,916	5,471	5,148	1,895	1,603	1,772
February	6,904	7,467	7,958	4,604	5,220	1,569	1,575	1,755
March	7,526	8,677	7,956	4,787	5,251	1,994	1,960	1,701
April	7,403	7,933	8,033	5,424	5,209	1,147	1,448	1,674
May	6,796	8,199	8,246	4,761	5,121	1,147	1,813	1,711
June	11,027	8,583	8,569	6,275	5,560	2,693	1,644	1,939
July	9,903	8,614	8,440	6,641	5,624	1,510	1,827	1,865
August	9,812	9,406	8,516	5,337	5,327	2,508	2,940	1,891
September	7,705	7,907	8,494	5,203	5,442	1,506	1,515	1,790
October	9,045	8,387	8,385	6,130	5,660	1,733	1,605	1,784
November	6,976	8,069	8,304	4,829	5,334	1,320	1,206	1,722
December	7,156	7,925	8,064	4,895	5,373	1,428	1,612	1,511
1976								
January	8,652	8,132	8,220	6,010	5,729	1,697	1,453	1,594
February	7,206	7,962	8,344	4,745	5,203	1,664	1,672	1,676
March	8,241	8,842	8,461	4,995	5,354	2,093	2,014	1,779
April	8,677	9,134	8,556	5,946	5,784	1,688	2,096	1,841
May	6,825	8,772	8,553	4,828	5,419	1,155	1,828	1,958
June	11,319	8,491	8,365	5,949	5,059	3,218	1,983	1,971
July	9,593	8,116	8,628	6,362	5,369	1,812	2,157	1,993
August	7,427	6,833	9,148	5,055	5,010	1,458	1,747	2,003
September	9,840	10,424	9,412	6,120	6,335	2,152	2,147	2,075
October	12,635	12,255	9,831	7,447	7,012	2,312	2,157	2,289
November	9,620	10,355	10,120	5,561	6,145	2,497	2,258	2,237
December	9,903	11,003	10,641	5,341	5,882	2,855	3,270	2,316
1977								
January	9,838	9,848	10,480	6,352	6,114	2,138	1,842	2,289
February	8,787	9,963	10,216	5,501	6,223	2,206	2,219	2,471
March	8,957	9,458	10,229	5,537	5,928	2,086	1,987	2,599
April	10,092	10,668	(NA)	6,365	6,271	2,640	3,251	(NA)
May	8,140	10,436		5,344	5,984	1,908	3,024	
June	9,450	(¹)		5,739	(¹)	2,077	(¹)	
July	8,331	(¹)		6,195	(¹)	1,249	(¹)	
August	8,748	(¹)		5,337	(¹)	1,861	(¹)	
September	(NA)			(NA)		(NA)		
October								
November								
December								

NA=not available; p=preliminary; r=revised; e=estimated. *Indicates series shown in charts. (See page 6.)

¹See "New Features and Changes for This Issue," page 3.

defense indicators

TABLE

2

Advance Indicators of Defense Activity--Continued

Year and month	623. Gross obligations incurred outside the Federal Government for national defense, Treasury		Defense Department military prime contract awards for work performed in the United States, DOD							
			625. Total			626. Aircraft		627. Missile and space systems		
	Seasonally adjusted*	Moving average of seasonally adjusted data— 6-month*	Not seasonally adjusted	Seasonally adjusted*	Moving average of seasonally adjusted data— 6-month*	Not seasonally adjusted	Seasonally adjusted	Not seasonally adjusted	Seasonally adjusted	
	(Mil. dol.)	(Mil. dol.)	(Mil. dol.)	(Mil. dol.)	(Mil. dol.)	(Mil. dol.)	(Mil. dol.)	(Mil. dol.)	(Mil. dol.)	(Mil. dol.)
1975										
January	8,069	8,422	3,567	3,693	3,494	1,062	...	346	...	
February	8,271	7,894	3,321	3,987	3,488	509	1,873	276	1,206	
March	8,590	8,472	2,625	2,817	3,513	421	...	244	...	
April	5,335	p8,863	2,914	4,122	3,720	316	...	377	...	
May	12,426	p9,084	2,713	3,926	3,744	386	1,524	242	1,451	
June	p10,487	p9,259	6,626	3,773	3,925	732	...	537	...	
July	9,397	p9,176	4,376	3,842	3,969	810	...	661	...	
August	9,321	p9,592	5,295	5,072	3,776	1,254	2,413	1,070	1,465	
September	8,092	p9,137	3,179	3,080	3,600	469	...	379	...	
October	7,830	8,479	3,174	2,961	3,493	817	...	463	...	
November	9,697	8,492	2,608	2,872	3,420	373	1,770	498	1,316	
December	6,537	8,467	2,870	3,130	3,074	483	...	426	...	
1976										
January	9,476	8,870	3,288	3,407	3,612	546	...	341	...	
February	9,168	9,235	2,529	2,993	3,716	356	2,744	278	1,234	
March	10,511	9,142	5,356	6,309	3,832	2,064	...	243	...	
April	10,022	p9,616	2,600	3,586	3,946	326	...	290	...	
May	9,137	p9,410	2,563	3,565	3,751	576	2,694	213	1,375	
June	p9,383	p9,100	6,843	3,817	3,863	1,562	...	602	...	
July	8,238	p9,114	2,592	2,234	3,633	416	...	287	...	
August	7,307	p9,557	3,969	3,665	4,025	914	2,011	422	845	
September	10,597	p9,650	4,934	4,929	4,294	799	...	521	...	
October	12,679	10,034	6,269	5,942	4,524	896	...	771	...	
November	9,698	10,290	4,580	5,175	4,731	1,140	3,661	1,060	2,346	
December	11,684	10,958	4,543	5,198	4,866	1,442	...	639	...	
1977										
January	9,777	10,938	3,360	3,478	4,851	955	...	355	...	
February	11,313	10,825	3,685	4,472	4,780	959	2,380	362	1,926	
March	10,476	10,976	4,325	4,843	4,809	680	...	610	...	
April	12,000	10,465	4,041	5,513	(NA)	1,274	...	371	...	
May	10,605	(NA)	3,778	5,351		852	(¹)	309	(¹)	
June	8,617		3,349	(¹)		695		387		
July	(NA)			3,696	(¹)		1,280	354		
August				3,750	(¹)		494	251		
September				(NA)			(NA)	(NA)		
October										
November										
December										

NA=not available; p=preliminary; r=revised; e=estimated. *Indicates series shown in charts. (See pages 6 and 7.)

¹See "New Features and Changes for This Issue," page 3.

Advance Indicators of Defense Activity--Continued

Year and month	Defense Department military prime contract awards for work performed in the United States, DOD--Continued						
	628. Ships, not seasonally adjusted	629. Weapons and ammunition		630. Electronic and communications equipment		631. Combat vehicles	
		Not seasonally adjusted	Seasonally adjusted	Not seasonally adjusted	Seasonally adjusted	Not seasonally adjusted	Seasonally adjusted
	(Mil. dol.)	(Mil. dol.)	(Mil. dol.)	(Mil. dol.)	(Mil. dol.)	(Mil. dol.)	(Mil. dol.)
1975							
January	325	125	...	414	...	21	...
February	251	160	537	331	1,404	66	288
March	11	217	...	535	...	52	...
April	621	147	...	313	...	23	...
May	94	128	577	587	1,305	86	191
June	858	672	...	696	...	161	...
July	250	52	...	394	...	126	...
August	814	126	545	470	1,410	70	259
September	439	95	...	430	...	90	...
October	80	128	...	435	...	67	...
November	114	66	375	445	1,280	14	172
December	211	146	...	332	...	62	...
1976							
January	310	76	...	263	...	48	...
February	124	101	348	305	1,110	26	238
March	1,213	148	...	442	...	61	...
April	306	158	...	348	...	32	...
May	65	135	447	381	1,204	63	415
June	346	450	...	735	...	512	...
July	506	52	...	207	...	4	...
August	91	90	1,112	506	1,478	150	242
September	396	418	...	664	...	119	...
October	861	108	...	410	...	252	...
November	153	121	453	710	1,778	47	683
December	178	173	...	566	...	204	...
1977							
January	283	90	...	427	...	74	...
February	478	177	427	436	1,470	74	568
March	483	131	...	473	...	152	...
April	322	193	(¹) ...	615	(¹) ...	25	(¹) ...
May	273	225	(¹) ...	521	(¹) ...	71	(¹) ...
June	288	132	(¹) ...	512	(¹) ...	69	(¹) ...
July	118	133	(¹) ...	460	(¹) ...	39	(¹) ...
August	283	218	(¹) ...	731	(¹) ...	65	(¹) ...
September	(NA)	(NA)	(¹) ...	(NA)	(¹) ...	(NA)	(¹) ...
October							
November							
December							

NA=not available; p=preliminary; r=revised; e=estimated.

¹See "New Features and Changes for This Issue," page 3.

defense indicators

TABLE

2

Advance Indicators of Defense Activity--Continued

Year and month	Defense Department military prime contract awards for work performed in the United States, DOD--Continued							
	632. Other hard goods		633. Soft goods		634. Construction		635. Services	
	Not seasonally adjusted	Seasonally adjusted	Not seasonally adjusted	Seasonally adjusted	Not seasonally adjusted	Seasonally adjusted	Not seasonally adjusted	Seasonally adjusted
	(Mil. dol.)	(Mil. dol.)	(Mil. dol.)	(Mil. dol.)	(Mil. dol.)	(Mil. dol.)	(Mil. dol.)	(Mil. dol.)
1975								
January	154	...	217	...	168	...	307	...
February	143	497	704	1,489	134	481	341	1,396
March	152	...	191	...	127	...	201	...
April	147	...	164	...	156	...	190	...
May	165	487	121	658	291	838	211	925
June	399	...	213	...	1,073	...	574	...
July	104	...	811	...	82	...	634	...
August	115	532	307	937	61	486	570	1,136
September	150	...	256	...	178	...	204	...
October	201	...	173	...	149	...	216	...
November	156	631	214	687	56	605	210	523
December	179	...	244	...	176	...	121	...
1976								
January	190	...	817	...	85	...	244	...
February	180	590	330	1,611	107	448	256	1,111
March	166	...	187	...	151	...	230	...
April	173	...	221	...	198	...	179	...
May	159	434	120	780	213	611	158	881
June	316	...	243	...	791	...	587	...
July	92	...	287	...	79	...	335	...
August	177	792	513	646	196	1,073	504	1,018
September	324	...	171	...	403	...	429	...
October	105	...	1,760	...	42	...	660	...
November	226	600	220	2,603	82	385	391	1,356
December	199	...	295	...	136	...	275	...
1977								
January	213	...	163	...	125	...	241	...
February	141	635	181	944	101	594	371	1,234
March	222	...	538	...	175	...	242	...
April	237	...	166	...	142	...	211	...
May	203	(¹)	156	(¹)	456	(¹)	220	(¹)
June	214		200		228		204	
July	271		170		160		215	
August	229	(NA)	191	(NA)	531	(NA)	243	
September							(NA)	
October								
November								
December								

NA=not available; p=preliminary; r=revised; e=estimated.

¹See "New Features and Changes for This Issue," page 3.

Advance Indicators of Defense Activity--Continued

Year and month	Defense Department military prime contract awards for work performed in the United States, DOD--Continued					640. Defense Department military prime contract awards for work outside the United States, DOD	
	636. Contracts under \$10,000		637. Educational and nonprofit institutions		638. Civilian Health and Medical Program of the Uniformed Services (CHAMPUS), not seasonally adjusted	Not seasonally adjusted	Seasonally adjusted
	Not seasonally adjusted (Mil. dol.)	Seasonally adjusted (Mil. dol.)	Not seasonally adjusted (Mil. dol.)	Seasonally adjusted (Mil. dol.)	(Mil. dol.)	(Mil. dol.)	(Mil. dol.)
1975							
January	372	...	51	...	5	114	...
February	345	1,144	61	205	0	93	388
March	419	...	53	...	2	96	...
April	418	...	42	...	0	73	...
May	367	1,141	35	201	0	86	613
June	635	...	76	...	0	558	...
July	263	...	184	...	5	244	...
August	345	1,218	92	253	1	149	317
September	409	...	80	...	0	124	...
October	374	...	67	...	0	252	...
November	412	1,273	50	192	0	164	941
December	408	...	82	...	0	255	...
1976							
January	327	...	39	...	2	286	...
February	416	1,156	48	163	2	95	681
March	405	...	44	...	2	139	...
April	300	...	68	...	1	147	...
May	430	1,100	50	254	0	93	609
June	625	...	73	...	1	306	...
July	253	...	74	...	0	208	...
August	351	1,458	55	142	0	132	424
September	615	...	74	...	1	347	...
October	201	...	203	...	0	575	...
November	303	892	127	415	0	107	962
December	358	...	78	...	0	175	...
1977							
January	365	...	69	...	0	362	...
February	344	1,279	61	285	0	74	878
March	528	...	91	...	0	191	...
April	420	...	65	...	0	101	...
May	451	(¹) ***	41	(¹) ***	0	103	(¹) ***
June	384		36		0	157	
July	449		47		0	190	
August	464		50		0	174	
September	(NA)		(NA)		(NA)	(NA)	
October							
November							
December							

NA=not available; p=preliminary; r=revised; e=estimated.

¹See "New Features and Changes for This Issue," page 3.

defense indicators

TABLE

2

Advance Indicators of Defense Activity--Continued

Year and month	Defense Department gross unpaid obligations outstanding, DOD						648. Manufacturers' new orders, defense products, Census		650. Manufac- turers' new orders from the U.S. Govern- ment, aerospace industries, Census, seasonally adjusted*	
	643. Total		644. Operations		645. Procurement					
	Not seasonally adjusted	Seasonally adjusted*	Not seasonally adjusted	Seasonally adjusted	Not seasonally adjusted	Seasonally adjusted	Seasonally adjusted*	Moving average of seasonally adjusted data— 6-month*		
	(Mil. dol.)	(Mil. dol.)	(Mil. dol.)	(Mil. dol.)	(Mil. dol.)	(Mil. dol.)	(Mil. dol.)	(Mil. dol.)	(Mil. dol.)	
1975										
January	40,819	40,052	7,997	7,625	25,484	24,838	1,398	2,004	...	
February	40,008	39,875	7,520	7,626	25,452	24,568	2,576	2,147	4,415	
March	39,473	40,198	7,169	7,775	25,688	25,259	1,996	2,118	...	
April	38,589	39,918	7,276	7,794	24,932	24,957	2,445	2,080	...	
May	37,120	40,086	6,746	7,713	24,321	25,099	2,266	2,242	3,912	
June	39,557	40,959	7,303	8,005	25,311	25,438	1,799	2,167	...	
July	41,470	41,437	8,733	8,548	25,167	25,370	2,367	2,262	...	
August	43,248	42,140	8,677	8,132	26,070	26,684	2,130	2,123	4,783	
September	43,084	41,805	8,677	8,216	26,002	26,479	2,563	2,095	...	
October	43,754	41,845	9,259	8,247	26,081	26,238	1,610	2,118	...	
November	42,767	41,468	8,804	8,353	25,810	25,707	2,100	1,963	5,227	
December	41,551	41,309	8,261	8,241	25,507	25,305	1,937	1,974	...	
1976										
January	42,110	41,358	8,947	8,548	25,503	24,905	1,440	2,017	...	
February	41,512	41,459	8,538	8,681	25,586	24,841	2,194	2,197	5,426	
March	41,046	41,866	7,966	8,658	25,783	25,277	2,818	2,247	...	
April	41,029	42,494	8,253	8,827	25,606	25,657	2,690	2,360	...	
May	39,742	42,970	7,795	8,914	25,125	25,929	2,401	2,326	5,272	
June	42,152	43,612	8,037	8,780	26,508	26,482	2,614	2,280	...	
July	43,366	43,251	8,939	8,717	26,537	27,162	1,239	2,169	...	
August	42,525	41,406	8,569	8,025	26,346	26,802	1,919	2,194	3,818	
September	43,351	42,047	8,615	8,160	26,832	27,185	2,153	2,318	...	
October	47,890	45,813	10,624	9,484	27,632	27,827	2,840	2,557	...	
November	48,988	47,517	10,700	10,184	28,934	28,733	3,141	2,675	6,663	
December	50,354	50,103	10,374	10,353	29,348	29,202	4,050	2,670	...	
1977										
January	51,694	50,780	11,150	10,660	29,966	29,465	1,949	2,680	...	
February	52,016	52,016	11,122	11,326	30,485	29,946	1,887	2,806	4,496	
March	51,326	52,373	10,563	11,494	30,550	30,128	2,214	2,832	...	
April	52,309	54,206	10,978	11,729	31,330	31,551	3,597	2,520	...	
May	51,512	55,749	10,574	12,098	31,390	32,562	3,293	2,518	p6,420	
June	51,549	53,308	10,320	11,254	31,449	31,449	2,182	2,536	...	
July	50,898	50,695	10,676	10,395	30,853	31,259	1,932	r2,439	...	
August	50,133	48,815	9,792	9,169	30,791	31,292	1,998	p2,559	(NA)	
September		(NA)	(NA)	(NA)	(NA)	(NA)	r1,630	(NA)		
October							p4,318	(NA)		
November										
December										

NA=not available; p=preliminary; r=revised; e=estimated. *Indicates series shown in charts. (See pages 7 and 8.)

Advance Indicators of Defense Activity--Continued

Year and month	653. Average weekly overtime hours, production workers, defense products industries, BLS			654. Accession rate, defense products industries, BLS			655. Layoff rate, defense products industries, BLS		
	Not seasonally adjusted	Seasonally adjusted*	Moving average of seasonally adjusted data— 4-month*	Not seasonally adjusted	Seasonally adjusted*	Moving average of seasonally adjusted data— 4-month*	Not seasonally adjusted	Seasonally adjusted*	Moving average of seasonally adjusted data— 4-month*
	(Hours)	(Hours)	(Hours)	(Per 100 employees)	(Per 100 employees)	(Per 100 employees)	(Per 100 employees)	(Per 100 employees)	(Per 100 employees)
1975									
January	2.4	2.5	2.6	1.4	1.6	1.6	1.2	1.1	1.0
February	2.4	2.5	2.5	1.3	1.6	1.6	1.3	1.2	1.2
March	2.3	2.5	2.5	1.3	1.6	1.7	2.1	1.9	1.4
April	2.1	2.4	2.4	1.9	2.1	1.6	1.4	1.3	1.4
May	2.0	2.3	2.4	1.3	1.3	1.5	1.3	1.3	1.5
June	2.5	2.4	2.4	1.7	1.0	1.4	1.3	1.4	1.2
July	2.2	2.5	2.4	1.6	1.3	1.2	0.8	1.0	1.2
August	2.6	2.6	2.5	1.6	1.2	1.2	1.2	1.3	1.2
September	2.8	2.5	2.6	1.7	1.3	1.2	1.0	1.2	1.2
October	2.7	2.6	2.6	1.4	1.2	1.2	1.0	1.1	1.1
November	2.7	2.5	2.5	1.0	1.3	1.4	0.8	0.7	0.9
December	2.9	2.5	2.6	0.8	1.6	1.4	0.6	0.6	0.8
1976									
January	2.5	2.6	2.6	1.3	1.4	1.5	1.1	1.0	0.8
February	2.5	2.6	2.6	1.3	1.6	1.6	0.8	0.7	0.8
March	2.4	2.5	2.4	1.5	1.7	1.5	0.8	0.7	0.7
April	1.7	2.0	2.4	1.2	1.4	1.6	0.6	0.5	0.6
May	2.3	2.6	2.4	1.6	1.6	1.6	0.6	0.6	0.6
June	2.5	2.5	2.4	2.1	1.5	1.4	0.6	0.7	0.6
July	2.4	2.7	2.6	1.6	1.3	1.5	0.7	0.8	0.7
August	2.7	2.7	2.6	2.0	1.6	1.5	0.6	0.7	0.8
September	2.6	2.3	2.6	1.9	1.5	1.5	0.6	0.8	0.8
October	2.8	2.7	2.6	1.8	1.6	1.6	0.8	0.8	0.7
November	2.8	2.5	2.6	1.6	1.9	1.7	0.5	0.5	0.6
December	3.2	2.8	2.7	0.9	1.7	1.9	0.3	0.4	0.6
1977									
January	2.7	2.8	2.8	2.2	2.4	2.0	0.6	0.5	0.4
February	2.8	2.9	2.8	1.8	2.1	2.1	0.5	0.4	0.5
March	2.5	2.7	2.8	2.1	2.3	2.2	0.9	0.7	0.5
April	2.6	3.0	2.9	2.0	2.2	2.2	0.4	0.3	0.5
May	2.9	3.1	3.0	2.3	2.3	2.2	0.5	0.5	0.4
June	3.0	3.0	3.0	2.8	2.2	2.1	0.3	0.3	0.4
July	2.8	3.0	2.9	2.0	1.7	2.0	0.6	0.7	0.5
August	2.7	2.6	2.9	2.4	2.0	(NA)	0.4	0.5	(NA)
September	p3.0	p2.8	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
October	(NA)	(NA)							
November									
December									

NA=not available; p=preliminary; r=revised; e=estimated. *Indicates series shown in charts. (See page 8.)

defense indicators

TABLE

3

Intermediate and Final Indicators of Defense Activity

Year and month	657. Output of defense and space equipment, FRB, seasonally adjusted*	659. Manufacturers' inventories, defense products, Census, seasonally adjusted*	661. Manufacturers' unfilled orders, defense products, Census, seasonally adjusted*	664. Manufacturers' unfilled orders from the U.S. Gov- ernment, aerospace industries, Census, seasonally adjusted*	666. Defense Department progress payments out- standing, DOD, not seasonally adjusted*	670. Employment in defense products industries, total, BLS	
	(Index: 1967=100)	(Mil. dol.)	(Mil. dol.)	(Mil. dol.)	(Mil. dol.)	(Thous.)	Seasonally adjusted*
1975							
January	82.1	5,487	27,221	...	...	1,178	1,175
February	79.9	5,565	27,815	...	...	1,141	1,141
March	79.7	5,639	27,823	20,907	9,609	1,137	1,142
April	80.2	5,750	28,238	...	...	1,121	1,128
May	80.9	5,890	28,604	...	...	1,131	1,140
June	81.6	6,051	28,459	21,230	10,464	1,123	1,127
July	81.0	6,207	28,920	...	...	1,110	1,117
August	80.6	6,252	29,007	...	...	1,100	1,108
September	81.2	6,399	29,706	20,906	11,008	1,104	1,100
October	78.5	6,456	29,237	...	...	1,097	1,090
November	77.3	6,549	29,264	...	...	1,089	1,077
December	77.7	6,568	29,210	21,776	11,257	1,088	1,075
1976							
January	80.5	6,488	28,449	...	...	1,084	1,081
February	80.1	6,523	28,438	...	...	1,075	1,076
March	79.5	6,634	29,069	22,598	9,848	1,071	1,077
April	78.4	6,720	29,550	...	...	1,066	1,072
May	78.1	6,824	29,727	...	...	1,061	1,070
June	77.5	6,774	30,294	22,883	12,041	1,060	1,064
July	77.5	6,846	29,422	...	...	1,043	1,050
August	78.5	6,804	29,153	...	...	1,053	1,060
September	77.6	6,798	29,188	22,020	11,881	1,062	1,059
October	78.0	6,847	29,800	...	...	1,062	1,056
November	77.6	6,847	30,698	...	...	1,066	1,054
December	77.2	6,577	32,231	21,666	8,465	1,070	1,060
1977							
January	78.0	6,609	31,536	...	...	1,067	1,062
February	78.5	6,625	30,809	...	...	1,067	1,069
March	78.5	6,517	30,411	22,962	8,521	1,061	1,067
April	79.9	6,602	31,512	...	...	1,071	1,077
May	80.0	6,637	32,226	...	...	1,071	1,079
June	80.3	6,874	31,857	p24,308	8,735	1,083	1,086
July	p80.4	6,936	31,212	...	...	1,084	1,092
August	p80.8	6,926	30,707	...	...	1,077	p1,084
September	p80.8	6,854	p29,768	(NA)	(NA)	p1,089	p1,084
October	p78.4	(NA)	p31,630	(NA)	(NA)	(NA)	(NA)
November	(NA)						
December							

NA=not available; p=preliminary; r=revised; e=estimated. *Indicates series shown in charts. (See pages 9 and 10.)

Intermediate and Final Indicators of Defense Activity--Continued

Year and month	671. Employment in defense products industries, production workers, BLS		673. Index of aggregate weekly hours, defense products industries, BLS		675. Index of aggregate weekly payrolls, production workers, defense products industries, BLS	
	Not seasonally adjusted	Seasonally adjusted*	Not seasonally adjusted	Seasonally adjusted*	Not seasonally adjusted	Seasonally adjusted*
	(Thous.)	(Thous.)	(1967=100)	(1967=100)	(1967=100)	(1967=100)
1975						
January	618	615	69.2	69.2	102.8	102.6
February	589	589	67.0	67.0	98.6	98.4
March	585	588	66.8	67.0	99.1	99.4
April	570	574	66.1	66.8	97.6	99.5
May	581	588	66.5	66.8	100.2	101.3
June	573	577	66.4	66.6	101.2	102.3
July	564	570	65.0	66.1	97.9	101.7
August	555	563	64.9	65.6	98.3	101.0
September	558	556	65.5	65.1	102.0	101.2
October	554	549	64.9	64.5	101.5	100.4
November	549	540	64.6	63.5	101.8	98.7
December	549	538	65.0	63.8	104.9	99.8
1976						
January	545	542	64.1	64.1	101.3	101.1
February	540	540	63.5	63.5	100.7	100.4
March	537	539	63.3	63.6	100.8	101.1
April	533	537	62.0	62.7	96.1	99.3
May	530	536	62.6	63.0	99.2	100.0
June	529	533	62.6	62.8	99.4	100.2
July	510	516	61.2	62.2	96.0	99.8
August	520	528	62.0	62.7	99.2	101.8
September	529	528	62.4	62.0	101.9	101.1
October	529	525	62.4	62.0	104.0	102.6
November	532	523	63.5	62.5	106.5	103.4
December	533	524	64.1	62.7	109.2	103.8
1977						
January	533	529	63.0	62.8	106.4	105.5
February	531	531	63.6	63.7	108.5	108.4
March	525	528	63.3	63.6	107.4	107.8
April	533	538	63.5	64.5	109.2	113.1
May	534	539	63.8	64.1	110.3	111.2
June	541	543	64.6	64.6	112.7	113.5
July	539	546	64.0	65.1	110.9	115.3
August	537	545	64.0	64.7	111.5	114.5
September	p548	p546	p64.9	p64.5	p117.1	p116.2
October	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
November						
December						

NA=not available; p=preliminary; r=revised; e=estimated. *Indicates series shown in charts. (See page 10.)

defense indicators

TABLE

3

Intermediate and Final Indicators of Defense Activity--Continued

Year and month	Defense Department personnel, DOD		Defense Department net outlays, DOD				
	677. Military, active duty, not seasonally adjusted*	678. Civilian, direct hire employment, not seasonally adjusted*	680. Total, military functions and military assistance			681. Operations	
			Not seasonally adjusted	Seasonally adjusted*	Moving average of seasonally adjusted data--6-month*	Not seasonally adjusted	Seasonally adjusted
	(Thous.)	(Thous.)	(Mil. dol.)	(Mil. dol.)	(Mil. dol.)	(Mil. dol.)	(Mil. dol.)
1975							
January	2,145	1,038	7,051	6,766	7,312	4,775	4,648
February	2,146	1,036	7,258	7,590	7,284	4,727	4,924
March	2,137	1,034	7,244	7,190	7,258	4,736	4,831
April	2,127	1,034	7,190	6,958	7,056	4,960	4,856
May	2,124	1,035	7,780	7,494	7,308	4,909	4,941
June	2,128	1,042	7,476	6,336	7,475	4,954	4,747
July	2,129	1,052	7,124	8,278	7,423	4,918	4,977
August	2,111	1,038	7,961	8,594	7,552	5,081	5,029
September	2,105	1,030	6,631	6,880	7,566	4,810	5,016
October	2,097	1,031	7,913	7,732	7,788	5,260	5,131
November	2,099	1,029	7,203	7,574	7,515	4,997	4,988
December	2,084	1,028	7,695	7,672	7,251	5,078	5,067
1976							
January	2,092	1,023	6,649	6,636	7,326	4,887	4,940
February	2,093	1,019	6,962	7,011	7,322	4,848	4,879
March	2,090	1,016	7,642	7,334	7,259	5,026	4,995
April	2,087	1,011	7,872	7,703	7,068	5,297	5,160
May	2,081	1,010	7,042	7,200	7,406	4,889	5,023
June	2,082	1,010	7,843	6,525	7,486	5,170	4,925
July	2,087	1,014	7,433	8,663	7,563	5,050	5,135
August	2,085	1,006	7,163	7,493	7,546	5,059	5,054
September	2,084	997	7,513	7,794	7,562	5,457	5,543
October	2,086	995	7,478	7,600	7,657	4,984	5,015
November	2,082	996	7,301	7,294	7,477	5,277	5,220
December	2,072	995	7,422	7,096	7,614	5,356	5,190
1977							
January	2,077	994	6,979	7,586	7,649	5,262	5,436
February	2,078	995	8,004	8,312	7,697	5,202	5,430
March	2,075	995	8,454	8,006	7,911	5,529	5,501
April	2,071	995	7,850	7,889	7,896	5,487	5,443
May	2,070	997	8,412	8,575	8,125	5,269	5,349
June	2,075	1,009	8,266	7,005	8,135	5,540	5,271
July	2,079	1,008	7,879	8,964	7,290	5,389	5,449
August	2,073	998	8,244	8,370	8,323	5,505	5,402
September	2,075	982	7,795	7,938	(NA)	5,820	5,879
October	p2,072	(NA)	p7,922	p8,092		p5,580	p5,753
November			(NA)	(NA)		(NA)	(NA)
December							

NA=not available; p=preliminary; r=revised; e=estimated. *Indicates series shown in charts. (See pages 10 and 11.)

Intermediate and Final Indicators of Defense Activity--Continued

Year and month	Defense Department net outlays, DOD--Continued			683. Budget outlays for the national defense function, Treasury		685. Defense Department personnel compensation, DOD	
	682. Procurement			Seasonally adjusted*	Moving average of seasonally adjusted data--6-month*	Not seasonally adjusted	Seasonally adjusted*
	Not seasonally adjusted	Seasonally adjusted*	Moving average of seasonally adjusted data--6-month*				
	(Mil. dol.)	(Mil. dol.)	(Mil. dol.)	(Mil. dol.)	(Mil. dol.)	(Mil. dol.)	(Mil. dol.)
1975							
January	1,427	1,428	1,460	7,039	7,554	2,913	2,768
February	1,351	1,444	1,429	7,896	7,526	2,808	2,869
March	1,500	1,440	1,414	7,385	7,536	2,812	2,850
April	1,220	1,194	1,354	7,297	7,342	2,867	2,870
May	1,467	1,406	1,328	7,788	7,564	2,870	2,877
June	1,409	1,215	1,360	6,649	7,747	2,823	2,887
July	1,225	1,268	1,322	8,367	7,706	2,941	2,895
August	1,559	1,634	1,361	8,996	7,818	2,873	2,910
September	1,191	1,217	1,330	7,140	7,836	2,936	2,961
October	1,500	1,425	1,365	7,971	8,079	3,008	2,954
November	1,081	1,220	1,384	7,896	7,830	2,866	2,893
December	1,319	1,427	1,328	8,103	7,352	2,916	2,904
1976							
January	1,363	1,384	1,305	6,874	7,411	3,018	2,907
February	1,227	1,293	1,382	6,126	7,380	2,820	2,804
March	1,195	1,082	1,361	7,497	7,286	2,887	2,866
April	1,792	1,884	1,330	7,784	7,068	2,845	2,861
May	1,092	1,095	1,321	7,334	7,376	2,851	2,889
June	1,418	1,244	1,281	6,795	7,509	3,007	3,036
July	1,347	1,326	1,338	8,717	7,656	2,963	2,960
August	1,063	1,055	1,241	7,409	7,649	2,962	2,962
September	1,356	1,423	1,328	7,896	7,653	2,978	2,997
October	1,337	1,303	1,418	7,743	7,776	3,026	3,037
November	1,502	1,617	1,462	7,360	7,610	3,020	2,978
December	1,745	1,781	1,561	7,530	7,764	3,097	3,088
1977							
January	1,524	1,594	1,554	7,723	7,802	3,034	2,951
February	1,570	1,646	1,596	8,331	7,845	2,886	2,951
March	1,511	1,381	1,552	8,125	8,060	3,137	3,118
April	1,558	1,555	1,496	8,000	7,996	3,008	3,063
May	1,324	1,358	1,526	8,650	8,289	3,084	3,087
June	1,643	1,442	1,509	7,146	r8,296	3,112	3,143
July	1,572	1,772	1,511	9,483	8,455	3,054	3,082
August	r1,521	1,547	r1,502	r8,370	8,504	r3,146	r3,109
September	r1,372	r1,391	(NA)	9,079	(NA)	p3,129	p3,157
October	p1,512 (NA)	p1,500 (NA)		8,294 (NA)		(NA)	(NA)
November							
December							

NA=not available; p=preliminary; r=revised; e=estimated. *Indicates series shown in charts. (See page 11.)

defense indicators

TABLE

3

Intermediate and Final Indicators of Defense Activity--Continued

Year and month	688. Manufacturers' shipments, defense products, Census		689. Manufacturers' shipments to the U.S. Government, aerospace industries, Census, seasonally adjusted*	691. Ratio, manufacturers' unfilled orders to shipments, defense products, Census		693. Ratio, manufacturers' inventories to shipments, defense products, Census	
	Seasonally adjusted*	Moving average of seasonally adjusted data-5-month*		Seasonally adjusted*	Moving average of seasonally adjusted data-5-month*	Seasonally adjusted*	Moving average of seasonally adjusted data-5-month*
	(Mil. dol.)	(Mil. dol.)	(Mil. dol.)	(Ratio)	(Ratio)	(Ratio)	(Ratio)
1975							
January	1,923	1,902		14.2	14.6	2.9	2.9
February	1,982	1,950	4,105	14.0	14.3	2.8	2.9
March	1,989	1,965	...	14.0	14.2	2.8	2.9
April	2,030	1,969		13.9	14.3	2.8	2.9
May	1,901	1,954	4,104	15.0	14.5	3.1	3.0
June	1,943	1,965	...	14.6	14.6	3.1	3.1
July	1,906	1,931	...	15.2	15.0	3.3	3.2
August	2,043	1,967	4,847	14.2	14.8	3.1	3.2
September	1,864	1,993	...	15.9	14.7	3.4	3.2
October	2,079	2,010		14.1	14.6	3.1	3.2
November	2,073	2,042	4,283	14.1	14.3	3.2	3.2
December	1,991	2,110	...	14.7	13.7	3.3	3.1
1976							
January	2,201	2,132		12.9	13.6	2.9	3.1
February	2,206	2,159	4,564	12.9	13.4	3.0	3.0
March	2,187	2,206	...	13.3	13.2	3.0	3.0
April	2,210	2,175		13.4	13.6	3.0	3.1
May	2,224	2,156	5,056	13.4	13.8	3.1	3.1
June	2,047	2,156	...	14.8	13.8	3.3	3.1
July	2,111	2,137		13.9	13.8	3.2	3.2
August	2,188	2,138	4,528	13.3	13.8	3.1	3.2
September	2,117	2,178	...	13.8	13.6	3.2	3.1
October	2,228	2,258		13.4	13.4	3.1	3.0
November	2,244	2,350	4,970	13.7	13.1	3.1	2.9
December	2,515	2,450	...	12.8	12.7	2.6	2.8
1977							
January	2,647	2,526		11.9	12.4	2.5	2.6
February	2,615	2,577	5,277	11.8	12.1	2.5	2.5
March	2,611	2,589	...	11.6	12.1	2.5	2.5
April	2,496	2,570		12.6	12.2	2.6	2.6
May	2,578	2,563	p5,054	12.5	12.3	2.6	2.6
June	2,551	2,541	...	12.5	12.4	2.7	2.7
July	2,578	r2,555		12.1	r12.2	2.7	2.7
August	2,501	p2,531	(NA)	12.3	p12.3	2.8	(NA)
September	r2,568	(NA)		r11.6	(NA)	2.7	
October	p2,457	(NA)		p12.9	(NA)	(NA)	
November							
December							

NA=not available; p=preliminary; r=revised; e=estimated. *Indicates series shown in charts. (See page 12.)

Defense-Related Balance of Payments Components

TABLE
4

Year and quarter	546. Transfers under U.S. military agency sales contracts (exports), BEA ¹		547. Direct defense expenditures (imports), BEA, not seasonally adjusted ²	696. U.S. Government cash receipts associated with military sales contracts, BEA ³	
	Not seasonally adjusted	Seasonally adjusted*		Not seasonally* adjusted	Seasonally adjusted*
	(Mil. dol.)	(Mil. dol.)		(Mil. dol.)	(Mil. dol.)
1973					
First quarter.....	332	347	1,169	520	566
Second quarter.....	504	455	1,231	544	552
Third quarter.....	489	531	1,067	610	617
Fourth quarter.....	1,017	1,009	1,162	616	555
1974					
First quarter.....	644	638	1,153	497	546
Second quarter.....	738	683	1,298	642	650
Third quarter.....	720	781	1,265	995	990
Fourth quarter.....	850	850	1,319	808	756
1975					
First quarter.....	946	924	1,317	1,050	(IIA)
Second quarter.....	888	874	1,185	1,013	
Third quarter.....	902	957	1,096	1,148	
Fourth quarter.....	1,183	1,164	1,198	1,376	
1976					
First quarter.....	1,132	1,095	1,160	2,246	
Second quarter.....	1,193	1,189	1,228	1,858	
Third quarter.....	1,403	1,472	1,237	2,041	
Fourth quarter.....	1,486	1,457	1,222	2,068	
1977					
First quarter.....	1,912	1,845	1,329	1,992	
Second quarter.....	pl,854	pl,867	pl,403	pl,885	
Third quarter.....					
Fourth quarter.....					

NA=not available; p=preliminary; r=revised; e=estimated. *Indicates series shown in charts. (See page 13.)

¹Includes deliveries for which Israel has been released from its contractual liability to pay.²Excludes funds made available to release Israel from its contractual liability to pay for defense articles and services purchased through military sales contracts. Quarterly expenditures for such purpose under Public Law 93-199 and subsequent legislation amounted to (in millions): 1974, IIQ, \$623; IIIQ, \$223; IVQ, \$91; 1975, IQ, \$187; IIQ, \$124; IIIQ, \$83; IVQ, \$242; 1976, IQ, \$16; IIQ, \$100; IIIQ, \$743; IVQ, \$5; 1977, IQ, \$138; IIQ, \$245.

Appendix A. SEASONAL ADJUSTMENT FACTORS

Series title	1977											
	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
MONTHLY SERIES												
Defense Department gross obligations incurred:												
617. Total ¹	99.9	88.2	94.7	94.6	78.0	135.2	112.5	108.5	99.8	105.3	92.4	90.0
619. Operations.....	103.9	88.4	93.4	101.5	89.3	117.8	116.5	101.2	96.9	108.2	90.3	90.8
621. Procurement.....	116.1	99.4	105.0	81.2	63.1	161.4	84.7	82.6	100.7	106.8	111.2	87.3
623. Gross obligations incurred outside the Federal Government for national defense ²	101.3	84.9	99.6	94.1	82.8	126.3	117.7	110.0	96.5	95.2	103.3	90.4
625. Defense Department military prime contract awards for work performed in the United States.....	96.6	82.4	89.3	73.3	70.6	177.9	115.5	107.1	101.4	111.0	86.7	87.4
Defense Department gross unpaid obligations outstanding:												
643. Total.....	101.8	100.0	98.0	96.5	92.4	96.7	100.4	102.7	103.1	104.5	103.1	100.5
644. Operations.....	104.6	98.2	91.9	93.6	87.4	91.7	102.7	106.8	105.6	111.9	104.9	100.2
645. Procurement.....	101.7	101.8	101.4	99.3	96.4	100.0	98.7	98.4	99.6	100.8	101.3	100.5
648. Manufacturers' new orders, defense products ³	108.0	93.7	97.3	82.5	65.3	117.1	186.8	94.1	102.5	106.9	83.8	101.0
653. Average weekly overtime hours, production workers, defense products industries ⁴	-.1	-.1	-.2	-.4	-.2	.0	-.2	.1	.2	.2	-.3	.4
654. Accession rate, defense products industries ⁴	-.2	-.3	-.2	-.2	-.0	-.6	-.3	-.4	-.4	-.2	-.4	-.8
655. Layoff rate, defense products industries ⁴	-.1	-.1	-.2	-.1	-.0	-.0	-.1	-.1	-.1	-.0	-.0	-.1
657. Output of defense and space equipment ⁵	100.3	100.3	100.4	99.1	99.6	100.3	98.5	98.2	99.6	100.0	101.0	102.3
659. Manufacturers' inventories, defense products ³	98.5	100.1	101.1	100.7	99.8	100.4	100.1	100.3	100.3	100.9	100.4	100.4
661. Manufacturers' unfilled orders, defense products ³	101.2	100.9	100.6	99.1	96.2	97.4	101.4	101.2	100.9	101.5	100.0	99.9
Employment in defense products industries:												
670. Total.....	100.5	99.8	99.5	99.4	99.3	99.7	99.2	99.3	100.4	100.6	101.0	100.9
671. Production workers.....	100.8	99.9	99.5	99.2	99.0	99.6	98.7	98.5	100.4	100.9	101.6	101.7
673. Index of aggregate weekly hours, defense products industries.....	100.3	99.9	99.6	98.5	99.6	99.9	98.3	99.0	100.6	100.6	101.5	102.1
675. Index of aggregate weekly payroll, production workers, defense products industries.....	100.9	100.1	99.7	96.6	99.2	99.3	96.2	97.4	100.7	101.4	103.0	105.2
Defense Department net outlays:												
680. Total, military functions and military assistance ³	92.0	96.3	105.6	99.5	98.1	118.0	87.9	98.5	98.4	97.9	103.0	102.8
681. Operations ¹	96.8	95.8	100.5	100.8	98.5	105.1	98.9	101.9	99.0	97.0	103.3	99.5
682. Procurement ¹	95.6	95.4	109.4	100.2	97.5	113.9	88.7	98.3	98.6	100.8	93.2	107.5
683. Budget outlays for the national defense function ³	91.7	97.6	105.5	99.7	98.9	117.6	84.4	100.5	98.9	97.5	103.1	103.1
685. Defense Department personnel compensation ¹	102.8	97.8	100.6	98.2	99.9	99.0	99.1	101.2	99.1	99.7	101.6	100.3
688. Manufacturers' shipments, defense products ³	98.7	97.6	100.4	98.5	100.5	105.4	94.8	97.4	106.1	101.4	96.3	103.8
QUARTERLY SERIES												
	1Q		IIQ			IIIQ			IVQ			
200. Gross national product ³	95.9		99.9			98.9			105.1			
264. Fed. Govt. purchases of goods and services, national defense ³	98.3		102.8			97.7			101.4			
546. Transfers under U.S. military agency sales contracts—exports ³	91.1	37	100.4			69			29			
Defense Department military prime contract awards:												
626. Aircraft.....	109.0		90.1			106.3			95.0			
627. Missile and space systems.....	68.9		80.7			146.2			105.3			
629. Weapons and ammunition.....	93.2		167.3			50.5			88.8			
630. Electronic and communications equipment.....	90.9		121.2			93.8			94.8			
631. Combat vehicles.....	52.8		164.5			108.3			73.6			
632. Other hard goods.....	90.7		146.1			75.1			88.3			
633. Soft goods.....	93.4		72.2			146.6			87.4			
634. Construction.....	67.5		197.2			67.9			67.5			
635. Services.....	69.2		103.5			130.0			97.8			
636. Under \$10,000.....	96.7		122.8			84.0			96.6			
637. Educational and nonprofit institutions.....	77.6		76.0			149.3			98.2			
640. Outside U.S.....	71.4		92.3			147.6			89.1			
Aerospace industries:												
650. Manufacturers' new orders from the U.S. Government.....	90.5		82.7			122.8			104.4			
664. Manufacturers' unfilled orders from the U.S. Government.....	101.3		96.2			100.3			102.1			
669. Manufacturers' shipments to the U.S. Government.....	93.8		102.6			101.0			102.6			

NOTE: The seasonal adjustment factors presented in this table were computed using the techniques described in the Bureau of the Census Technical Paper No. 15, *The X-11 Variant of the Census Method II Seasonal Adjustment Program*.

Monthly data for Defense Department military prime contract awards by commodity category (series 626 to 640) have not been adjusted for seasonal variation. The series on direct defense expenditures—imports (series 547), Defense Department progress payments outstanding (series 666), and Defense Department personnel (series 677 and 678) contain no measurable seasonal variation.

¹ Factors are products of seasonal and trading-day factors.

² Prior to 1972, data for gross unpaid obligations outstanding are not available for a number

of months but these gaps were filled with averages of preceding and following months for purposes of estimating seasonal variation.

³ These series have been adjusted by the source agencies. The factors shown here are implicit seasonal factors for the calendar year 1976 and are derived by dividing the seasonally unadjusted data by the seasonally adjusted data.

⁴ These series have been seasonally adjusted using the additive version of the seasonal adjustment program. Seasonally adjusted data are derived by subtracting the adjustment factor from the unadjusted data. Seasonally adjusted data for other series are derived by dividing the seasonal factor into the unadjusted data.

⁵ This series is the total of component series which have been adjusted separately by the source agency. The factors shown here are implicit seasonal factors for the calendar year 1976 and are derived by subtracting the seasonally adjusted data from the seasonally unadjusted data.

Appendix B. AVERAGE CHANGES AND RELATED MEASURES OF VARIABILITY

Part 1. Monthly Series

Series title	Period covered	\bar{Q}	\bar{CI}	\bar{T}	\bar{C}	\bar{I}/\bar{C}	MCD	Average duration of run (ADR)	
								CI	MCD
Defense Department gross obligations incurred:									
617. Total	Jan. '57-Jan. '76	18.28	6.98	6.89	0.72	9.53	6	1.53	2.30
618. Operations	July '59-Jan. '76	8.98	2.77	2.66	.65	4.09	4	1.69	3.00
621. Procurement	Jan. '57-Jan. '76	44.28	22.39	22.27	1.54	14.44	6	1.46	2.08
623. Gross obligations incurred outside the Federal Government for national defense	July '63-Sept. '75	14.17	7.92	7.82	.73	10.72	6	1.52	2.61
625. Defense Department military prime contract awards for work performed in the United States, total	Jan. '57-Jan. '76	32.78	15.55	15.41	1.35	11.42	6	1.42	2.05
Defense Department gross unpaid obligations outstanding:									
643. Total	Jan. '57-Jan. '76	2.13	1.32	.95	.88	1.08	2	2.65	3.98
644. Operations	Jan. '57-Jan. '76	5.59	2.68	2.37	1.13	2.10	3	1.96	5.05
645. Procurement	Jan. '57-Jan. '76	2.19	1.52	1.07	.94	1.14	2	2.08	4.12
Manufacturers' new orders:									
647. Defense products industries	Jan. '57-Mar. '72	(NA)	15.11	14.89	.97	15.32	6	1.58	2.33
648. Defense products	Feb. '68-Jan. '76	(NA)	21.50	21.43	1.47	14.59	6	1.56	1.80
*653. Average weekly overtime hours, production workers, defense products industries (hours)	Jan. '58-Jan. '76 . . . . .	.22	.11	.11	.03	3.14	4	2.50	3.70
*654. Accession rate, defense products industries (per 100 employees)	Jan. '58-Jan. '76 . . . . .	.38	.16	.15	.05	3.12	4	2.16	4.18
*655. Layoff rate, defense products industries (per 100 employees)	Jan. '58-Jan. '76 . . . . .	.17	.14	.13	.04	3.14	4	1.93	4.18
657. Output of defense and space equipment	Jan. '57-Jan. '76	(NA)	.96	.50	.75	.67	1	3.40	3.40
Manufacturers' inventories:									
658. Defense products industries	Jan. '57-Mar. '72	(NA)	1.04	.52	.85	.62	1	2.80	2.80
659. Defense products	Jan. '58-Jan. '76	(NA)	1.75	1.13	1.29	.88	1	3.10	3.10
Manufacturers' unfilled orders:									
660. Defense products industries	Jan. '57-Mar. '72	(NA)	1.23	.90	.83	1.09	2	2.76	3.42
661. Defense products	Jan. '58-Jan. '76	(NA)	1.51	1.18	.93	1.27	2	2.04	4.13
Employment in defense products industries:									
670. Total	Jan. '58-Jan. '76 . . . . .	.76	.70	.29	.59	.50	1	4.91	4.91
671. Production workers	Jan. '58-Jan. '76	1.08	.93	.51	.70	.73	1	3.72	3.72
673. Index of aggregate weekly hours, defense products industries	Jan. '58-Jan. '76 . . . . .	.95	.76	.39	.60	.65	1	4.00	4.00
675. Index of aggregate weekly payrolls, production workers, defense products industries	Jan. '58-Jan. '76	1.72	1.14	.75	.78	.96	1	2.92	2.92
Defense Department personnel:									
677. Military, active duty (1)	Jan. '57-Jan. '76 . . . . .	.62	(NA)	.27	.55	.48	1	3.86	3.86
678. Civilian, direct hire employment (1)	Jan. '57-Jan. '76 . . . . .	.55	(NA)	.34	.42	.81	1	4.30	4.30
Defense Department net outlays:									
680. Total, military functions and military assistance	Jan. '57-Jan. '76	8.89	4.31	4.19	.77	5.42	6	1.70	3.10
681. Operations	July '59-Jan. '76	7.07	3.62	3.41	.73	4.69	5	1.58	2.34
682. Procurement	Jan. '57-Jan. '76	15.10	11.77	11.65	1.59	7.32	6	1.57	2.90
683. Budget outlays for the national defense function	Jan. '57-Jan. '76	8.87	4.27	4.18	.73	5.73	6	1.58	2.97
685. Defense Department personnel compensation	Jan. '57-Jan. '76	2.70	1.33	1.13	.49	2.32	4	2.57	4.38
Manufacturers' shipments:									
687. Defense products industries	Jan. '57-Mar. '72	(NA)	2.67	2.49	.87	2.85	3	1.64	3.40
688. Defense products	Jan. '68-Jan. '76	(NA)	4.40	4.34	.98	4.41	5	1.57	2.71
Ratio, manufacturers' unfilled orders to shipments:									
690. Defense products industries	Jan. '57-Mar. '72	(NA)	2.95	2.71	.96	2.82	4	1.90	3.81
691. Defense products	Jan. '68-Jan. '76	(NA)	4.93	4.81	1.01	4.77	5	1.69	2.85
Ratio, manufacturers' inventories to shipments:									
692. Defense products industries	Jan. '57-Mar. '72	(NA)	2.84	2.90	.72	4.01	5	2.46	5.74
693. Defense products	Jan. '68-Jan. '76	(NA)	5.29	5.18	1.13	4.57	5	1.96	3.07

NA = not available.

*Measures for these series are based on actual changes rather than percent changes (see definition below). (1) indicates measures are based on unadjusted data.

BRIEF DEFINITIONS OF MEASURES SHOWN IN PART 1

The measures in this appendix provide a historical perspective for interpreting current changes in each series. They are derived using the Census X-11 seasonal adjustment program. Brief definitions of the measures are given below; more complete definitions appear in *Electronic Computers and Business Indicators* by Julius Shiskin, issued as Occasional Paper 57 by the National Bureau of Economic Research, 1957 (reprinted from *Journal of Business*, October 1957).

" \bar{Q} " is the average month-to-month percent change, without regard to sign, in the original unadjusted series. (See final paragraph below for exceptions to these definitions.)

" \bar{CI} " is the same for the seasonally adjusted series.

" \bar{T} " is the same for the short-term trend, which is a smooth, flexible moving average of the seasonally adjusted series.

" \bar{I} " is the same for the irregular component, which is obtained by dividing the seasonally adjusted series by the short-term trend.

" \bar{I}/\bar{C} " measures the relative smoothness (small values) or irregularity (large values) of the seasonally adjusted series. It is the ratio of the average monthly percent change (without regard to sign) in the irregular component to the average monthly percent change (without regard to sign) in the short-term trend.

"MCD" (months for cyclical dominance) estimates the number of months required for the short-term trend to dominate the irregular component. Average percent changes are computed for spans of from 1 to 12 months for both the irregular component and the short-term trend. MCD is the shortest span of months for which the average percent change (without regard to sign) in the short-term trend is greater than that in the irregular component. All MCD's greater than "5" are shown as "6".

Appendix B. AVERAGE CHANGES AND RELATED MEASURES OF VARIABILITY—Continued

"Average Duration of Run" (ADR) is another measure of smoothness and is equal to the average number of consecutive monthly changes in the same direction in any series of observations. When there is no change between two observations, a change in the same direction as the preceding change is assumed. The ADR shown for the seasonally adjusted series (CI) and the MCD curve, which is a moving average (with the number of terms equal to MCD) of the seasonally adjusted series. A comparison of these measures with the expected ADR of a random series indicates whether the changes approximate those of a random series. In a random series, the expected ADR is 1.5 and the actual values fall between 1.36 and 1.75 about 95 percent of the time. For a moving average of a random series, the expected ADR is 2.

Measures for series identified with an asterisk (*) are computed by an additive method. This method is used for series with zero or negative data, series which could approach zero, and series expressed in percent. In this method, the measures are defined the same as above except for two differences: (1) the measures are based on actual month-to-month changes (rather than percent changes) and (2) the irregular component is obtained by subtracting the short-term trend from the seasonally adjusted series. The average changes shown above for the components of such a series are in the same unit of measure as the series itself. The unit is indicated in the series title.

Part 2. Quarterly Series

Series title	Period covered	Q	CI	T	C	T/C	QCD	Average duration of run (ADR)	
								CI	QCD
200. Gross national product	IQ '57-IVQ '75	(NA)	1.84	0.35	1.76	0.20	1	8.33	8.33
264. Federal Government purchases of goods and services, national defense	IQ '57-IVQ '75	(NA)	1.95	.79	1.70	.46	1	3.26	3.26
*546. Transfers under U.S. military agency sales contracts—exports (mil. dol.)	IQ '60-IVQ '75	79.21	65.13	48.28	34.19	1.41	2	1.70	2.30
*547. Direct defense expenditures—imports (mil. dol.) @	IQ '60-IVQ '75	42.32	(NA)	36.13	24.65	1.47	2	1.66	2.82
*613. National defense purchases as a percent of GNP (percent)	IQ '57-IVQ '75	(NA)	.16	.07	.15	.46	1	5.36	5.36
650. Manufacturers' new orders from the U.S. Government, aerospace industries	IQ '61-IVQ '75	24.44	17.96	14.82	5.85	2.53	3	1.44	1.73
664. Manufacturers' unfilled orders from the U.S. Government, aerospace industries	IQ '61-IVQ '75	4.55	3.91	2.44	2.68	.91	1	2.27	2.27
666. Defense Department progress payments outstanding @	IQ '57-IVQ '75	4.80	(NA)	2.06	4.35	.47	1	2.78	2.78
689. Manufacturers' shipments to the U.S. Government, aerospace industries	IQ '61-IVQ '75	7.04	4.27	3.43	2.11	1.62	2	1.84	2.76
*696. U.S. Government cash receipts associated with military sales contracts (million dollars)	IQ '60-IVQ '75	107.60	83.62	61.48	45.74	1.34	2	1.57	2.82

NA = not available.

*Measures for these series are based on actual changes rather than percent changes (see definition below). @ indicates measures are based on unadjusted data.

BRIEF DEFINITIONS OF MEASURES SHOWN IN PART 2

These measures are defined the same as those in part 1 except that they are based on quarter-to-quarter percent changes. For example, CI is the average quarter-to-quarter percent change (without regard to sign) in the seasonally adjusted series.

In deriving "QCD" (quarters for cyclical dominance), average percent changes are computed for spans of from one to four quarters for the irregular component and the short-term trend. QCD is the shortest span of quarters for

which the average percent change (without regard to sign) in the short-term trend is greater than that in the irregular component. All QCD's greater than "3" are shown as "4". The "Average Duration of Run" (ADR) measures are also expressed in quarters.

As in part 1, measures for series identified with an asterisk (*) are computed by an additive method. This method is the same as that used for the monthly series except for the use of quarterly data rather than monthly.

Appendix C. HISTORICAL DATA

This appendix provides historical data (back to 1945 if available) for selected Defense Indicators series. Data are shown for series which (a) have recently been added to the report, (b) have recently been revised, or (c) have not been shown here for a long time. By keeping these tables, the user can acquire a complete set of historical data. Each time a series is included in this appendix, it is footnoted to indicate the extent of any revisions since it was last shown. See the "Alphabetical Index-Series Finding Guide" for the latest issue in which historical data

were published for each series. Current figures are shown in the basic data tables each month and may be used to update these historical tables.

Official source agency annual figures are shown if available. Such figures may differ slightly from those computed from the monthly or quarterly data appearing in the tables. When both seasonally adjusted and unadjusted data are shown for a series, annual figures are included only for the unadjusted data. Quarterly and annual data are not included for moving averages.

Year	Monthly												Quarterly				Annual
	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	I Q	II Q	III Q	IV Q	
617. DEFENSE DEPARTMENT GROSS OBLIGATIONS INCURRED, TOTAL, NOT SEASONALLY ADJUSTED (MILLIONS OF DOLLARS)																	
1949...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
1950...	984	942	925	1,280	1,634	2,144	3,249	2,702	2,610	3,557	2,311	2,860	2,831	5,228	8,560	8,528	25,247
1951...	6,921	4,538	5,019	3,417	5,601	8,219	6,270	3,319	3,558	4,654	6,900	3,280	16,478	16,637	13,147	17,624	63,886
1952...	5,439	4,112	4,589	3,892	5,352	8,252	7,312	5,233	4,208	5,925	2,658	5,072	14,140	17,494	16,753	10,655	59,044
1953...	3,827	3,613	4,091	4,173	2,147	2,927	2,195	2,134	2,156	2,225	2,148	1,630	11,531	9,247	6,485	6,003	33,266
1954...	1,950	2,751	2,186	2,770	2,731	4,983	2,437	2,244	3,336	3,474	2,520	2,699	6,887	10,484	8,017	8,693	34,081
1955...	2,068	2,045	2,879	3,010	2,012	4,202	2,000	953	3,406	2,398	2,471	4,545	6,992	9,224	6,359	9,414	31,989
1956...	3,130	2,691	4,991	3,783	3,080	7,107	2,888	3,984	3,337	3,110	3,163	4,400	10,712	13,970	10,289	10,673	45,564
1957...	3,128	3,286	3,833	3,694	2,720	4,860	2,532	2,630	3,104	2,878	3,246	4,268	10,742	12,274	8,266	10,492	40,214
1958...	3,483	3,108	4,864	4,056	3,889	6,998	3,203	2,959	3,636	4,633	3,522	4,486	11,450	14,588	9,842	12,483	48,652
1959...	3,329	3,340	6,512	3,630	3,733	6,340	3,400	2,933	3,951	3,659	3,394	3,511	11,181	13,268	10,684	10,764	45,317
1960...	3,017	3,222	4,061	3,321	3,382	6,197	4,437	3,385	3,744	3,856	3,884	10,300	12,900	11,784	11,114	46,098	
1961...	3,408	3,735	4,246	3,389	3,451	6,138	3,609	4,697	4,818	4,209	3,873	4,931	11,389	12,978	13,124	12,904	50,395
1962...	4,164	3,728	4,805	4,355	3,773	6,291	4,861	4,084	3,920	4,912	4,633	4,091	12,697	14,419	12,865	13,636	53,617
1963...	4,360	3,756	4,365	3,935	4,162	6,899	4,883	4,278	4,180	5,507	3,844	4,158	12,485	14,399	13,343	13,513	54,335
1964...	4,093	4,779	4,131	4,379	4,399	6,552	5,381	3,959	4,428	4,048	3,930	4,970	13,003	15,330	13,749	12,948	55,030
1965...	4,040	3,488	4,554	4,534	4,246	6,792	4,927	4,892	5,326	5,165	4,399	5,565	12,582	14,613	15,145	15,500	73,195
1966...	4,056	4,132	5,998	6,242	5,055	10,314	5,095	6,050	6,335	5,905	5,367	5,936	12,129	12,613	18,266	17,988	81,849
1967...	5,451	5,092	6,191	5,191	5,186	10,348	5,991	6,791	6,855	7,252	7,255	17,061	23,892	20,798	19,298	81,849	
1968...	6,445	6,092	6,089	6,780	6,870	10,677	7,238	7,821	8,971	7,540	6,230	6,271	18,626	24,327	24,030	20,049	87,032
1969...	7,264	5,908	6,039	6,228	6,045	9,194	6,901	5,922	7,309	7,337	6,027	6,440	19,211	21,467	20,802	19,804	81,284
1970...	6,757	5,402	6,027	6,371	5,766	9,099	6,146	7,360	6,638	6,228	6,554	10,186	21,766	20,605	19,420	19,980	79,980
1971...	6,935	6,498	6,163	5,581	5,788	8,605	9,279	6,754	6,374	7,497	6,153	7,137	19,596	20,972	21,407	20,787	82,762
1972...	7,772	6,542	6,445	6,455	5,813	9,429	7,769	7,810	6,899	7,178	6,489	6,066	20,759	21,697	22,478	19,733	84,667
1973...	7,414	6,691	6,716	6,342	5,997	9,327	8,180	7,505	6,289	8,074	6,917	6,041	20,821	21,666	21,974	21,032	85,493
1974...	8,113	6,826	6,613	7,375	6,104	10,118	9,285	8,874	7,790	7,965	7,600	7,260	21,552	23,389	25,949	22,825	93,915
1975...	8,252	6,904	7,526	7,403	6,796	11,027	9,903	9,812	7,705	9,045	6,978	7,156	22,682	25,226	27,420	23,177	98,505
1976...	8,652	7,266	8,241	8,677	6,825	11,319	9,593	7,427	9,840	12,633	9,620	9,903	24,099	26,821	26,660	32,158	109,938
1977...	617. DEFENSE DEPARTMENT GROSS OBLIGATIONS INCURRED, TOTAL, SEASONALLY ADJUSTED (MILLIONS OF DOLLARS)												TOTAL FOR PERIOD				
1949...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
1950...	7,018	4,987	5,158	3,698	5,011	5,458	4,933	3,935	3,851	5,114	21,241	3,593	2,988	4,689	8,218	9,938	
1951...	5,601	4,488	4,544	3,980	5,302	5,362	6,191	5,782	4,520	3,101	3,091	6,208	14,187	12,357	20,931		
1952...	5,003	3,987	4,245	4,559	4,228	5,074	2,024	2,028	2,028	2,028	2,028	2,028	14,033	16,483	12,893		
1953...	2,095	3,074	1,966	2,539	2,024	3,074	2,563	2,597	3,493	3,890	2,944	2,788	7,135	8,633	8,653	9,622	
1954...	2,295	2,342	2,506	2,704	2,271	2,533	2,334	1,133	3,552	2,703	2,857	4,320	7,143	7,500	7,019	9,880	
1955...	3,585	3,125	4,131	3,424	3,529	4,225	3,592	4,882	3,502	3,479	3,566	3,988	10,841	11,177	11,976	11,031	
1956...	3,522	3,877	3,192	3,521	3,094	2,862	3,177	3,259	3,267	3,216	3,716	3,790	10,591	9,477	9,703	10,724	
1957...	3,834	3,664	4,252	3,985	4,480	4,271	3,931	3,634	3,719	4,910	3,800	3,898	11,750	12,736	11,284	12,608	
1958...	3,792	3,887	3,929	3,735	3,842	3,870	3,552	3,658	3,968	4,188	3,709	3,208	11,608	11,467	11,178	11,035	
1960...	3,447	3,554	3,592	3,483	3,901	3,882	4,973	3,897	3,869	3,620	4,042	3,689	10,593	11,266	12,739	11,351	
1961...	3,857	4,232	3,752	3,840	3,803	3,853	3,824	5,335	4,785	4,303	4,096	4,780	11,941	11,496	14,044	13,179	
1962...	4,473	4,349	4,616	4,764	4,599	4,099	4,925	4,212	4,135	4,787	4,866	4,249	13,439	13,062	13,373	13,902	
1963...	4,731	4,485	4,274	4,137	4,290	4,856	4,639	4,556	4,265	5,442	4,164	3,507	13,590	13,460	13,460	13,883	
1964...	4,242	5,783	4,245	4,563	4,813	3,449	5,010	4,274	4,308	3,984	4,487	5,088	14,270	13,725	13,592	13,559	
1965...	4,421	4,276	4,599	4,575	4,720	4,446	4,888	5,017	5,110	5,345	5,225	5,599	13,745	15,015	16,169		
1966...	5,489	5,328	6,178	6,392	5,442	6,021	5,963	6,687	5,958	6,037	6,138	6,320	16,995	18,655	18,608	18,501	
1967...	6,589	6,659	6,495	6,746	7,439	6,838	6,427	6,625	7,267	7,258	6,667	6,035	19,743	21,023	20,319	20,740	
1968...	6,688	7,212	6,641	7,013	7,067	7,481	7,317	7,638	8,244	7,258	7,183	7,011	20,541	21,561	23,199	21,450	
1969...	7,378	7,097	6,860	6,556	6,632	6,324	6,887	6,680	6,490	6,830	7,150	6,830	21,335	19,512	20,057	20,818	
1970...	6,794	6,488	6,766	6,683	6,556	6,491	6,793	6,357	6,518	6,388	7,033	6,942	20,410	17,167	18,787	17,432	
1971...	7,996	7,611	7,533	6,752	6,910	6,819	6,974	6,763	6,849	7,333	6,673	6,810	20,810	20,311	20,744	21,440	
1972...	7,604	6,951	6,898	7,267	6,625	6,866	7,173	7,613	6,624	7,018	7,708	21,453	20,958	21,610	20,832		
1973...	6,827	7,283	7,362	6,865	7,275	6,992	7,312	6,932	6,790	7,671	7,315	6,850	21,473	21,132	21,034	21,836	
1974...	7,527	7,398	7,485	7,762	7,187	8,166	7,983	8,279	8,179	7,681	8,211	8,116	22,410	23,115	24,641	24,009	
1975...	7,341	7,467	8,677	7,933	8,199	8,583	8,614	9,406	7,907	8,387	8,069	7,925	23,485	24,715	25,927	24,381	
1976...	8,132	7,962	8,842	9,134	8,672	8,491	8,116	6,833	10,424	12,255	10,355	11,003	24,936	26,397	25,373	33,613	

NOTE: These series contain no revisions but are reprinted for the convenience of the user.

(NOVEMBER 1977)

Appendix C. HISTORICAL DATA—Continued

Year	Monthly												Quarterly				Annual
	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	I Q	II Q	III Q	IV Q	
617. DEFENSE DEPARTMENT GROSS OBLIGATIONS INCURRED, TOTAL, 6-MONTH MOVING AVERAGE OF SEASONALLY ADJUSTED DATA (MILLIONS OF DOLLARS)																	
1949...	1,112	1,187	1,248	1,275	1,525	1,355	2,148	2,584	2,695	2,695	2,695	2,695	1,099	1,158	1,166		
1950...	1,112	1,187	1,248	1,275	1,525	1,355	2,148	2,584	2,695	2,695	2,695	2,695	1,099	1,158	1,166		
1951...	4,522	4,482	4,916	5,227	4,874	5,538	4,412	5,090	5,090	5,473	5,586	5,538	5,591	5,591	5,466	4,165	
1952...	5,855	5,944	4,400	4,924	5,110	5,210	5,223	5,591	4,689	4,820	4,466	4,466	5,951	5,787	5,234		
1953...	4,283	4,288	4,073	5,433	3,018	2,752	2,485	2,218	2,264	2,265	2,274	2,274	2,385	2,385	2,385		
1954...	2,331	2,345	2,425	2,628	2,706	2,627	2,881	3,106	3,093	3,046	3,001	2,959	2,959	2,959	2,959		
1955...	2,794	2,597	2,484	2,442	2,449	2,247	2,421	2,421	2,519	2,816	3,025	3,357	3,357	3,357	3,357		
1956...	3,454	3,574	3,686	3,670	3,671	3,964	3,859	3,861	3,874	3,834	3,823	3,655	3,655	3,655	3,655		
1957...	3,604	3,631	3,532	3,345	3,287	3,184	3,197	3,144	3,250	3,405	3,534	3,582	3,582	3,582	3,582		
1958...	3,745	3,874	4,001	4,081	4,097	4,092	4,003	4,158	4,044	2,982	3,959	4,001	4,001	3,959	3,959		
1959...	4,036	3,840	3,847	3,843	3,803	3,764	3,771	3,835	3,813	3,703	3,685	3,687	3,687	3,687	3,687		
1960...	3,805	3,499	3,531	3,643	3,898	3,955	4,003	4,024	4,047	4,015	3,829	3,901	3,901	3,901	3,901		
1961...	3,882	3,919	3,879	3,905	3,917	4,085	4,237	4,334	4,383	4,537	4,628	4,464	4,464	4,464	4,464		
1962...	4,436	4,513	4,530	4,437	4,492	4,486	4,406	4,410	4,546	4,513	4,542	4,542	4,542	4,542	4,542		
1963...	4,592	4,474	4,395	4,496	4,481	4,492	4,474	4,591	4,654	4,557	4,491	4,696	4,696	4,696	4,696		
1964...	4,692	4,546	4,654	4,666	4,794	4,542	4,553	4,456	4,402	4,523	4,427	4,427	4,427	4,427	4,427		
1965...	4,474	4,574	4,613	4,506	4,584	4,707	4,793	4,921	5,005	5,197	5,298	5,349	5,349	5,349	5,349		
1966...	5,527	5,702	5,738	5,942	6,021	6,247	6,211	6,152	6,267	6,185	6,289	6,285	6,285	6,285	6,285		
1967...	6,374	6,492	6,710	6,794	6,767	6,762	6,890	6,976	6,847	6,843	6,887	6,985	6,985	6,985	6,985		
1968...	6,880	6,840	6,908	7,017	7,122	7,193	7,460	7,500	7,520	7,452	7,452	7,452	7,452	7,452	7,452		
1969...	7,121	7,034	6,932	6,727	6,727	6,727	6,727	6,727	6,727	6,727	6,727	6,727	6,727	6,727	6,727		
1970...	6,830	6,706	6,648	6,630	6,608	6,577	6,525	6,504	6,579	6,680	6,784	6,784	6,784	6,784	6,784		
1971...	6,859	6,923	7,916	6,934	6,934	6,951	6,767	6,864	6,813	6,987	7,010	7,042	7,042	7,042	7,042		
1972...	7,150	7,139	7,163	7,058	6,997	7,107	7,095	7,053	7,100	7,074	7,016	6,961	6,961	6,961	6,961		
1973...	7,051	7,026	7,053	7,101	7,181	7,123	7,028	7,162	7,169	7,145	7,181	7,259	7,259	7,259	7,259		
1974...	7,374	7,390	7,368	7,588	7,664	7,810	7,926	7,912	8,083	8,075	7,988	7,832	7,832	7,832	7,832		
1975...	7,918	7,958	7,956	8,033	8,246	8,569	8,440	8,316	8,494	8,385	8,304	8,064	8,064	8,064	8,064		
1976...	8,220	8,344	8,461	8,558	8,553	8,365	8,628	9,148	9,412	9,831	10,120	10,641	10,641	10,641	10,641		
1977...																	
619. DEFENSE DEPARTMENT GROSS OBLIGATIONS INCURRED, OPERATIONS, NOT SEASONALLY ADJUSTED (MILLIONS OF DOLLARS)																	
1959...																	
1960...	1,877	1,768	1,946	2,031	1,784	2,201	2,184	2,026	2,021	1,973	1,935	1,918	5,591	6,016	6,231	5,826	23,664
1961...	1,996	1,824	2,003	2,013	1,905	2,268	2,213	2,122	2,214	2,275	2,098	2,164	5,823	6,186	6,349	6,535	25,093
1962...	2,183	2,032	2,173	2,237	2,143	2,461	2,464	2,324	2,136	2,151	2,110	2,071	6,388	6,841	6,924	6,332	26,485
1963...	2,228	2,196	2,057	2,225	2,087	2,376	2,627	2,248	2,185	2,459	2,174	2,205	6,225	6,225	6,225	6,225	26,177
1964...	2,182	2,196	2,242	2,182	2,182	2,694	2,208	2,349	2,349	2,349	2,349	2,349	6,740	7,201	7,402	7,402	26,514
1965...	2,124	2,175	2,382	2,463	2,288	2,944	2,768	2,713	2,787	2,721	2,739	6,951	7,613	8,303	8,247	31,114	
1966...	2,821	2,545	2,961	3,039	2,864	3,701	3,480	3,622	3,325	3,262	3,236	3,204	8,327	9,604	10,427	9,702	38,060
1967...	3,495	3,226	3,508	3,664	3,531	4,239	3,700	3,700	3,689	3,776	3,774	3,663	10,229	11,434	11,224	10,813	43,700
1968...	3,798	3,435	3,487	3,799	3,707	4,976	4,371	4,214	4,249	4,340	3,548	3,628	10,720	12,482	12,641	11,516	47,359
1969...	4,537	3,521	3,731	4,047	3,981	4,764	4,816	4,317	3,956	4,411	3,839	3,820	11,789	12,692	12,989	12,074	49,544
1970...	4,210	3,628	3,828	4,372	4,010	4,848	4,590	4,053	4,016	4,327	3,716	3,804	11,666	13,230	12,659	11,847	49,402
1971...	4,249	3,629	3,933	4,340	3,834	4,808	4,843	4,146	3,953	4,454	3,905	3,987	11,811	12,982	12,942	12,346	50,081
1972...	5,623	3,990	4,170	4,437	4,084	5,110	4,933	4,539	4,647	4,193	4,027	4,205	13,631	13,597	13,577	13,118	53,118
1973...	4,688	4,097	4,174	4,522	4,195	5,122	5,334	5,534	4,201	5,034	4,467	4,467	13,589	13,589	13,589	13,589	54,410
1974...	4,181	4,177	4,377	4,982	4,436	6,131	5,923	5,844	5,211	5,394	4,471	4,926	13,555	15,588	15,896	14,591	59,228
1975...	5,471	4,404	4,787	5,944	4,763	6,275	6,641	5,337	5,203	6,130	4,829	4,895	14,862	16,480	17,181	15,854	44,357
1976...	6,010	4,745	4,995	5,946	4,820	5,849	6,362	5,855	6,120	7,447	5,561	5,341	15,750	16,723	17,537	16,349	68,359
1977...																	
619. DEFENSE DEPARTMENT GROSS OBLIGATIONS INCURRED, OPERATIONS, SEASONALLY ADJUSTED (MILLIONS OF DOLLARS)																	
1959...																	
1960...	1,913	1,907	1,973	1,999	1,928	1,992	2,022	1,998	1,998	1,907	1,957	1,935	5,919	5,969	5,921		
1961...	2,030	2,029	2,035	2,026	2,024	2,041	2,050	2,194	2,220	2,173	2,249	6,084	6,091	6,322	6,442		
1962...	2,164	2,258	2,249	2,246	2,266	2,231	2,235	2,272	2,175	2,058	2,181	2,190	6,671	6,743	6,682	6,429	
1963...	2,195	2,190	2,157	2,201	2,206	2,187	2,332	2,224	2,221	2,343	2,272	2,399	6,542	6,594	6,777	6,914	
1964...	2,320	2,328	2,342	2,340	2,333	2,396	2,507	2,414	2,338	2,404	2,401	2,390	6,990	7,069	7,259	7,195	
1965...	2,413	2,439	2,462	2,436	2,523	2,493	2,645	2,645	2,700	2,748	2,826	2,814	7,299	7,452	7,937	8,389	
1966...	2,882	2,857	3,026	3,039	3,101	3,241	3,168	3,502	3,299	3,275	3,331	3,351	8,765	9,361	9,368	9,342	
1967...	3,506	3,629	3,578	3,743	3,758	3,693	3,413	3,693	3,698	3,721	3,487	3,878	10,735	11,100	10,866	11,066	
1968...	3,745	3,737	3,657	3,777	3,927	4,411	3,924	3,924	4,411	3,924	3,924	3,924	11,174	12,140	11,713		
1969...	4,180	4,144	4,205	4,180	4,245	4,245	4,289	4,088	4,088	4,123	4,142	4,078	12,534	12,180	12,445	12,343	
1970...	4,160	4,146	4,136	4,290	4,241	4,160	4,073	4,063	4,013	4,088	4,017	4,006	12,442	12,613	12,426	12,734	
1971...	4,254	4,152	4,267	4,267	4,109	4,050	4,285	4,122	4,031	4,252	4,225	4,257	12,613	12,426	12,418	12,613	
1972...	4,572	4,338	4,375	4,361	4,323	4,396	4,410	4,456	4,516	4,419	4,488	4,456	13,285	13,080	13,285	13,063	
1973...	4,494	4,656	4,427	4,445	4,393	4,471	4,679	4,552	4,429	4,716	4,652	4,643	13,577	13,309	13,660	14,011	
1974...	4,714	4,758	4,699	4,804	4,662	5,466	5,110	5,203	5,040	4,999	4,786	5,334	14,171	14,932	15,353	15,119	
1975...	5,148	5,220	5,251	5,209	5,121	5,560	5,624	5,327	5,442	5,660	5,373	5,373	15,619	15,890	15,393	16,367	
1976...	5,729	5,203	5,354	5,784	5,419	5,059											

Appendix C. HISTORICAL DATA—Continued

Year	Monthly												Quarterly				Annual	
	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	I Q	II Q	III Q	IV Q		
621. DEFENSE DEPARTMENT GROSS OBLIGATIONS INCURRED, PROCUREMENT, NOT SEASONALLY ADJUSTED ¹ (MILLIONS OF DOLLARS)																	TOTAL FOR PERIOD	
1953...	152	
1954...	-77	932	272	228	583	1,960	560	291	1,335	1,467	555	2,171	827	2,771	2,186	4,193	9,977	
1955...	98	425	861	716	254	917	100	-1,225	1,458	165	348	2,348	1,384	1,887	533	2,861	6,665	
1956...	99	511	2,042	820	838	3,713	687	1,846	1,205	886	1,832	2,141	4,122	5,375	3,732	4,019	17,248	
1957...	815	1,073	569	1,213	581	2,502	289	1,033	1,208	886	1,234	2,023	3,581	3,158	2,152	3,895	12,786	
1958...	1,180	2,573	2,512	1,213	1,055	3,988	612	693	1,110	1,895	1,097	1,074	4,674	6,096	2,415	5,016	18,211	
1959...	976	1,160	2,058	1,065	1,029	3,101	540	685	1,319	1,269	1,097	1,079	4,194	5,195	2,564	3,384	15,307	
1960...	696	995	1,513	758	1,034	2,789	1,413	975	1,216	841	1,488	1,296	3,205	4,581	3,664	3,545	14,935	
1961...	978	1,387	1,713	846	848	2,729	849	1,772	1,077	1,208	1,236	1,870	4,078	4,423	4,498	4,314	17,313	
1962...	1,438	1,100	1,688	1,485	819	2,570	1,458	1,081	1,007	1,610	1,685	4,226	4,874	3,556	4,495	17,151		
1963...	1,332	1,125	1,352	1,035	1,103	2,683	1,104	1,338	1,183	1,950	1,044	1,214	3,809	4,821	3,625	4,208	16,463	
1964...	1,341	1,773	1,058	1,208	1,588	2,132	1,515	639	1,131	870	1,045	1,745	3,746	4,925	3,285	3,650	15,616	
1965...	1,258	1,188	1,194	1,048	1,219	1,315	2,256	986	1,516	1,733	1,168	1,857	2,795	4,940	4,116	4,768	16,610	
1966...	1,259	1,184	1,931	1,198	1,249	1,297	2,426	1,845	1,845	1,733	1,041	9,530	3,746	2,795	2,356	26,508		
1967...	1,738	1,851	1,924	1,801	2,485	4,663	1,045	1,894	3,215	2,699	1,717	1,876	5,113	9,449	4,134	6,292	28,258	
1968...	1,784	1,885	2,003	2,239	2,308	4,237	1,459	2,751	3,535	2,275	1,923	1,879	5,652	8,784	7,745	6,077	28,531	
1969...	1,781	1,567	1,480	1,428	1,264	3,087	851	1,309	2,570	2,078	1,516	2,608	5,779	4,730	5,602	20,939		
1970...	1,561	1,165	1,427	1,331	1,232	3,465	1,071	1,163	2,332	1,839	1,710	2,008	4,153	6,028	4,566	5,349	20,096	
1971...	1,946	1,672	1,245	1,425	1,103	2,504	1,518	1,361	1,665	2,183	1,544	2,209	4,863	5,032	4,944	9,936	30,375	
1972...	2,534	1,667	1,470	1,278	993	2,975	1,310	1,767	1,582	1,757	1,956	1,456	5,671	5,246	4,659	4,769	30,345	
1973...	1,815	1,785	1,435	1,028	1,171	2,871	1,019	1,393	1,168	2,105	1,714	1,321	5,035	5,070	3,580	5,140	18,825	
1974...	2,337	1,677	1,381	1,546	894	2,465	1,332	1,416	1,919	1,709	2,281	1,646	5,395	4,905	4,667	5,636	20,603	
1975...	1,895	1,569	1,994	1,471	1,147	2,993	1,510	2,508	1,506	1,733	1,320	1,428	5,458	4,987	5,524	4,481	20,850	
1976...	1,697	1,664	2,093	1,688	1,155	3,218	1,812	1,458	2,152	2,312	3,497	2,855	5,454	6,061	5,422	7,664	24,601	
1977...	621. DEFENSE DEPARTMENT GROSS OBLIGATIONS INCURRED, PROCUREMENT, SEASONALLY ADJUSTED ² (MILLIONS OF DOLLARS)												TOTAL FOR PERIOD					
1953...	...	...	...	...	...	...	470	172	200	206	304	-518	...	...	842	-8
1954...	58	740	14	307	758	2,067	1,064	490	1,370	1,851	680	1,560	788	2,211	3,924	3,891		
1955...	320	659	54	861	405	1,674	874	-819	1,999	1,846	1,531	1,459	1,573	1,091	2,321			
1956...	1,278	781	1,739	1,116	1,049	1,767	1,235	2,424	1,250	1,031	1,996	1,205	4,010	4,158	4,039	4,377		
1957...	1,140	1,407	1,117	1,347	802	744	707	927	1,265	786	1,418	1,227	3,654	2,789	3,531			
1958...	1,637	1,232	1,669	1,619	2,042	1,580	1,404	891	1,121	2,291	1,238	1,545	4,530	5,241	3,416	5,074		
1959...	1,330	1,362	1,371	1,398	1,381	1,425	1,202	870	1,319	1,517	1,124	929	4,063	4,204	3,391	3,570		
1960...	937	1,104	1,020	983	1,488	1,397	2,204	1,256	945	1,488	1,096	3,061	3,868	4,716	3,509			
1961...	1,277	1,355	1,230	1,047	1,220	1,398	1,181	2,278	1,933	1,354	1,286	1,773	4,062	3,657	3,392	4,413		
1962...	1,558	1,226	1,410	1,791	1,039	1,311	1,657	1,395	1,040	1,675	1,787	1,205	4,396	4,141	4,092	4,667		
1963...	1,584	1,206	1,386	1,213	1,358	1,363	1,132	1,700	1,207	2,010	1,094	1,273	4,158	4,039	4,039			
1964...	1,075	1,638	1,116	1,219	1,049	1,076	1,049	1,208	1,250	1,089	1,089	1,747	4,121	4,278	3,781	3,255		
1965...	1,005	700	1,355	1,444	1,254	1,254	1,258	1,741	1,733	1,733	1,212	2,080	4,100	4,601	4,827			
1966...	1,639	1,736	1,904	2,109	1,620	2,415	1,753	2,186	1,931	1,723	1,937	5,279	5,144	4,870	5,591			
1967...	2,296	2,140	1,903	1,754	2,480	2,290	1,633	1,925	2,958	2,735	2,173	1,846	6,339	6,524	6,518	6,754		
1968...	2,360	2,865	1,985	2,161	2,299	2,077	2,323	2,804	2,234	2,298	2,520	1,959	7,210	6,537	6,361	6,777		
1969...	2,088	2,075	1,701	1,636	1,528	1,447	1,476	1,752	1,867	1,820	2,103	5,864	4,716	4,675	5,790			
1970...	1,807	1,523	1,689	1,559	1,486	1,771	1,825	1,332	1,542	1,459	1,851	1,803	4,999	4,816	4,699	5,113		
1971...	1,871	1,839	1,496	1,788	1,554	1,389	2,314	1,662	1,712	1,915	1,624	1,958	5,196	4,731	5,389	5,497		
1972...	2,142	1,723	1,715	1,642	1,493	1,725	1,854	2,018	1,504	1,570	1,554	1,437	5,580	4,860	5,376	4,561		
1973...	1,489	1,609	1,585	1,220	1,824	1,712	1,338	1,527	1,184	1,911	1,646	1,383	4,883	4,860	4,074	4,940		
1974...	1,937	1,625	1,291	1,398	1,494	1,657	1,618	1,953	1,236	1,236	1,807	5,037	4,883	5,234	5,496			
1975...	1,623	1,575	1,960	1,148	1,813	1,630	1,827	2,940	1,515	1,605	1,206	1,612	5,138	4,905	6,282	4,423		
1976...	1,453	1,673	2,014	2,096	1,828	1,983	2,157	1,747	2,137	2,258	2,370	5,139	5,907	6,031	7,685			
1977...	621. DEFENSE DEPARTMENT GROSS OBLIGATIONS INCURRED, PROCUREMENT, SEASONALLY ADJUSTED ² (MILLIONS OF DOLLARS)												TOTAL FOR PERIOD					
1953...	...	...	...	...	...	...	...	...	...	...	...	...	139	66	161	
1954...	330	1,168	500	672	630	856	1,067	1,058	1,186	1,012	1,034							
1955...	892	760	714	505	531	2,046	1,446	1,446	1,446	569	1,933	1,778						
1956...	1,020	1,152	1,266	1,307	1,383	1,657	1,575	1,364	1,571	1,491	1,392	1,223						
1957...	1,200	1,250	1,184	1,021	924	949	1,265	958	1,055	1,210	1,216	1,278						
1958...	1,345	1,484	1,588	1,630	1,591	1,534	1,443	1,555	1,421	1,413	1,403	1,481						
1959...	1,523	1,374	1,398	1,378	1,357	1,275	1,266	1,285	1,243	1,160	1,116	1,155						
1960...	1,105	1,016	1,077	1,155	1,366	1,391	1,431	1,424	1,421	1,371	1,216	1,266						
1961...	1,262	1,279	1,238	1,287	1,271	1,391	1,508	1,559	1,570	1,634	1,730	1,555						
1962...	1,468	1,541	1,500	1,423	1,406	1,434	1,372	1,353	1,462	1,460	1,448	1,417						
1963...	1,422	1,374	1,445	1,422	1,462	2,319	1,823	1,239	1,083	1,394	1,122	1,095						
1964...	1,131	1,223	1,276	1,183	1,214	1,387	1,450	1,988	1,940	1,571	1,657	1,656						
1965...	1,694	1,747	1,815	1,904	1,923	2,009	2,002	1,973	1,990	1,910	2,001	1,982						
1966...	1,988	1,959	2,085	2,144	2,033	1,998	2,173	2,337	2,286	2,212	2,333	2,490						
1967...	2,327	2,232	2,253	2,291	2,285	2,275	2,483	2,506	2,543	2,523	2,484	2,362						
1968...	2,107	1,997	1,832	1,764	1,657	1,557	1,565	1,603	1,652	1,744	1,804	1,812						
1969...	1,798	1,747	3,691	1,636	1,639	1,607	1,586	1,569	1,630	1,633	1,643	1,728						
1970...	1,846	1,801	1,779	1,740	1,682	1,741	1,706	1,694	1,704	1,658	1,658	1,655						
1971...	1,718	1,773	1,724	1,654	1,728	1,699	1,687	1,708	1,739	1,814	1,786	1,796						
1972...	1,846																	

Appendix C. HISTORICAL DATA—Continued

Year	Monthly												Quarterly				Annual		
	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	I Q	II Q	III Q	IV Q			
623. GROSS OBLIGATIONS INCURRED OUTSIDE THE FEDERAL GOVERNMENT FOR NATIONAL DEFENSE, SEASONALLY ADJUSTED (MILLIONS OF DOLLARS)																	TOTAL FOR PERIOD		
1963...	4,412	5,031	5,551	5,221	4,585	4,226	4,605	4,585	3,801	4,458	4,703	4,809	3,975	4,205	15,398	13,417	13,521	13,374	55,702
1964...	4,420	4,114	4,430	4,613	4,741	4,429	5,156	4,985	4,493	4,505	4,523	4,379	4,612	4,383	12,962	12,989	13,119	16,472	58,338
1965...	5,568	5,924	6,250	5,903	5,989	6,255	6,269	6,603	6,248	6,303	6,484	6,313	6,742	18,517	13,783	15,119	16,472	58,338	
1966...	6,056	6,459	6,519	6,738	7,318	6,742	6,733	6,546	7,259	7,134	6,439	6,835	19,834	20,798	20,538	20,408	81,578		
1967...	7,187	7,294	6,781	6,686	6,863	6,790	7,203	7,138	6,837	6,790	7,287	6,807	7,305	7,086	20,752	21,251	23,930	22,198	74,479
1968...	7,287	6,750	7,213	6,993	6,761	6,589	6,774	6,792	6,203	5,717	6,051	7,153	21,262	20,338	21,178	20,884	88,130		
1970...	6,331	7,029	6,788	7,038	6,638	6,659	7,073	6,907	6,734	7,130	7,311	7,243	7,312	19,721	20,148	20,576	20,712	82,303	
1971...	6,258	7,168	7,294	7,481	7,196	7,258	7,255	7,607	6,823	6,916	7,116	7,217	7,235	7,598	22,718	21,634	22,316	22,577	88,130
1972...	6,264	7,754	7,819	6,270	7,647	8,534	8,226	8,202	9,326	8,503	8,983	8,139	23,957	24,451	27,054	25,605	101,067		
1973...	6,059	6,271	6,590	5,335	12,426	10,487	9,397	9,321	8,092	7,830	9,697	6,537	24,930	28,249	26,810	24,064	104,052		
1974...	9,476	9,168	10,511	10,022	9,137	9,383	8,238	7,307	10,597	12,679	9,698	11,684	29,155	28,542	26,182	34,061	117,900		
1977...																			
623. GROSS OBLIGATIONS INCURRED OUTSIDE THE FEDERAL GOVERNMENT FOR NATIONAL DEFENSE, 6-MONTH MOVING AVERAGE OF SEASONALLY ADJUSTED DATA (MILLIONS OF DOLLARS)																	TOTAL FOR PERIOD		
1963...	4,730	4,233	4,221	4,201	4,711	4,516	4,490	4,515	4,516	4,483	4,470	4,405							
1964...	4,390	4,429	4,450	4,458	4,581	4,726	4,817	4,927	5,014	5,265	5,334	5,489							
1965...	5,702	5,807	5,929	6,043	6,160	6,275	6,273	6,340	6,422	6,370	6,468	6,444							
1966...	6,489	6,562	6,701	6,772	6,752	6,766	6,689	6,955	6,809	6,824	6,812	6,919							
1967...	6,060	6,839	6,909	7,000	7,132	7,188	7,530	7,663	7,738	7,688	7,645	7,606							
1969...	7,243	7,057	6,983	6,933	6,936	6,910	6,919	6,937	7,008	7,010	7,024	6,966							
1970...	7,029	7,063	6,975	6,936	6,850	6,850	6,682	6,469	6,684	6,782	6,708	6,747							
1971...	6,845	7,065	6,863	6,787	6,911	6,890	6,882	6,897	6,979	7,064	7,282	7,306							
1972...	7,444	7,234	7,032	6,773	6,755	6,755	6,754	6,757	6,757	6,757	6,757	6,751							
1973...	7,490	7,152	7,081	7,064	7,177	7,266	7,154	7,169	7,172	7,152	7,174	7,146							
1974...	7,704	7,673	7,712	8,068	8,112	8,333	8,584	8,584	8,842	8,776	8,700	8,545							
1975...	8,422	7,894	8,472	8,863	9,084	9,259	9,176	9,592	9,137	8,479	8,492	8,467							
1976...	8,870	9,235	9,142	9,616	9,410	9,100	9,114	9,557	9,650	10,034	10,290	10,958							
1977...																			
683. BUDGET OUTLAYS FOR THE NATIONAL DEFENSE FUNCTION, SEASONALLY ADJUSTED (MILLIONS OF DOLLARS)																	TOTAL FOR PERIOD		
1953...	3,715	3,734	3,620	3,842	3,821	3,428	3,909	4,042	4,071	4,037	3,985	3,809	11,269	11,181	12,022	11,941	46,413		
1954...	3,497	3,794	3,772	3,752	3,752	3,752	3,752	3,752	3,752	3,752	3,752	3,752	11,447	11,113	9,953	10,236	42,749		
1955...	3,446	3,234	3,603	3,433	3,445	3,482	3,473	3,444	3,483	3,349	3,213	3,279	10,283	10,360	10,399	9,842	40,884		
1956...	3,168	3,271	3,222	3,349	3,385	3,895	3,250	3,418	3,393	3,573	3,635	3,597	9,661	10,629	10,061	10,805	53,046		
1957...	3,761	3,782	3,797	3,882	3,712	3,645	3,727	3,912	3,727	3,407	3,624	3,579	11,340	11,239	11,266	10,610	51,976		
1958...	3,707	3,724	3,722	3,620	3,694	3,871	3,885	3,688	3,908	3,986	3,927	3,952	11,153	11,185	11,481	11,885	44,455		
1959...	3,817	3,608	3,638	3,849	3,836	3,874	3,914	3,862	3,835	3,863	3,860	3,901	11,463	11,559	11,611	11,624	46,257		
1960...	3,807	3,769	3,733	3,728	3,744	3,437	3,888	3,906	3,926	3,846	3,909	3,984	11,309	10,909	11,720	11,739	45,677		
1961...	3,893	4,013	3,994	4,051	3,938	3,949	4,020	4,080	4,238	4,235	4,190	4,190	11,964	11,899	12,553	48,316			
1962...	4,380	4,353	4,355	4,444	4,577	4,511	4,297	4,363	4,396	4,479	4,511	4,387	13,088	13,532	13,156	13,377	53,153		
1963...	4,515	4,366	4,456	4,456	4,306	4,311	4,525	4,501	4,457	4,456	4,215	4,437	13,337	13,068	13,483	13,158	53,046		
1964...	4,291	4,591	4,185	4,444	4,850	4,985	3,798	4,027	4,208	4,145	4,252	4,200	13,067	14,279	12,033	12,597	51,976		
1965...	4,208	4,104	4,132	4,203	4,580	4,258	4,229	4,492	4,465	4,594	4,642	4,804	12,444	13,041	13,186	14,040	52,711		
1966...	4,896	4,807	5,057	5,000	5,076	5,424	5,671	5,506	5,005	5,728	5,681	5,710	14,765	15,500	16,982	17,119	64,361		
1967...	6,372	6,181	6,224	6,589	6,159	5,211	7,508	6,615	6,626	6,649	6,611	6,096	18,777	17,959	20,749	19,356	76,841		
1968...	7,061	6,559	6,157	6,816	7,095	6,863	5,857	6,930	6,811	6,719	7,075	7,133	19,784	20,774	19,598	20,927	81,083		
1969...	6,701	6,954	6,803	6,684	6,838	6,833	6,904	6,992	6,674	6,931	7,066	6,818	19,709	19,992	20,497	19,151	76,349		
1970...	6,609	6,648	6,452	6,491	6,705	5,796	7,110	6,813	6,475	6,310	6,306	6,535	18,912	18,964	17,777	18,080	74,734		
1971...	6,436	6,219	6,258	5,990	6,190	6,784	5,777	5,933	6,077	6,361	6,278	6,442	19,473	21,170	17,777	19,291	77,713		
1972...	6,534	6,142	6,231	6,922	6,234	6,164	6,566	6,749	6,567	6,249	6,249	6,249	19,658	19,330	19,379	19,693	78,060		
1973...	6,569	6,835	6,579	6,567	6,874	6,973	6,783	7,212	7,362	7,467	7,727	7,809	19,983	20,414	21,357	23,003	84,757		
1975...	7,039	7,896	7,385	7,297	7,788	6,849	8,367	8,996	7,140	7,971	7,896	8,103	22,320	21,734	24,503	23,970	92,527		
1976...	6,874	6,126	7,497	7,784	7,334	6,795	8,717	7,409	7,896	7,743	7,360	7,530	20,487	21,913	24,022	22,633	89,065		
1977...																			
683. BUDGET OUTLAYS FOR THE NATIONAL DEFENSE FUNCTION, 6-MONTH MOVING AVERAGE OF SEASONALLY ADJUSTED DATA (MILLIONS OF DOLLARS)																	TOTAL FOR PERIOD		
1953...	3,742	3,774	3,823	3,867	3,900	3,912	3,967	3,995	4,026	4,075	4,150	4,218							
1954...	3,898	3,827	3,757	3,760	3,666	3,592	3,511	3,644	3,441	3,460	4,443	4,442	4,442	4,442	4,442	4,442	4,442		
1955...	3,420	3,438	3,439	3,441	3,445	3,480	3,460	3,446	3,407	3,374	3,323	3,294							
1956...	3,251	3,251	3,279	3,382	3,395	3,420	3,448	3,486	3,527	3,478	3,527	3,563	3,624						
1957...	3,691	3,742	3,755	3,763	3,758	3,763	3,751	3,673	3,657	3,646	3,643	3,628	3,628						
1958...	3,627	3,663	3,674	3,723	3,753	3,747	3,778	3,839	3,878	3,891	3,880	3,900							
1959...	3,888	3,865	3,850	3,837	3,853	3,862	3,862	3,864	3,868	3,873	3,873	3,858							
1960...	3,822	3,800	3,780	3,703	3,717	3,739	3,772	3,791	3,819	3,910	3,911	3,929							
1961...	3,940	3,961	3,985	3,977	3,984	3,973	3,977	3,995	4,026	4,075	4,150	4,218							
1962...	4,274	4,334	4,391	4,437	4,400	4,441	4,448	4,454	4,443	4,422	4,442	4,442							
1963...	4,452	4,448	4,414	4,401	4,403	4,425	4,425	4,434	4,419	4,440	4,401	4,416							
1964...	4,371	4,361	4,466	4,538	4,476	4,302	4,385	4,336	4,236	4,105	4,173	4,186							
1965...	4,174	4,183	4,238	4,248	4,251	4,316	4,373	4,436	4,447	4,538	4,649	4,701							
1966...	4,8																		

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ALPHABETICAL INDEX—SERIES FINDING GUIDE

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		Charts	Tables					Charts	Tables		
Accession rate, defense products industries	654	8	21	10/77	4/73	Hours, defense products industries	673	10	23	10/77	4/73
Aerospace industries						Inventories, manufacturers'					
Manufacturers' new orders from U.S. Government	650	See New orders.				Defense products	656	9	22	2/77	2/73
Manufacturers' shipments to U.S. Government	658	See Shipments.				Defense products industries	658	9	...	1/72	2/73
Manufacturers' unfilled orders from U.S. Government	664	See Unfilled orders.				Ratio to shipments, defense products	683	12	26	2/77	2/73
Balance of payments (defense-related)						Ratio to shipments, defense products industries	682	12	...	11/72	2/73
Cash receipts associated with military sales contracts	686	13	27	10/77	10/73	Layoff rate, defense products industries	686	8	21	10/77	4/73
Direct defense expenditures	547	13	27	10/77	10/73						
Transfers under military agency sales contracts	548	13	27	10/77	10/73	Military personnel, Defense Department	677	10	24	9/76	8/68
Budget outlays for national defense function	683	See Outlays.				Military prime contract awards—See Contract awards.					
Cash receipts associated with military sales contracts	686	See Balance of payments.									
Civilian personnel, Defense Department	678	10	24	9/76	8/68	Net outlays, Defense Department—See Outlays.					
Compensation						New orders, manufacturers'					
Payrolls, aggregate weekly, defense products industries	675	10	23	10/77	4/73	Defense products	646	7	20	2/77	2/73
Personnel compensation, Defense Department	685	11	25	7/76	8/68	Defense products industries	647	7	...	11/72	2/73
Contract awards, military prime						From Government, aerospace industries	650	8	20	10/77	2/73
Aircraft	626	...	16	10/76	8/68	Obligations incurred, gross					
Civilian Health and Medical Program	638	...	19	10/76	...	Defense Department, operations	618	...	15	11/77	8/68
Combat vehicles	631	...	17	10/76	8/68	Defense Department, procurement	621	6	15	11/77	8/68
Construction	634	...	18	10/76	8/68	Defense Department, total	617	6	15	11/77	8/68
Contracts under \$10,000	636	...	19	10/76	8/68	Outside Government for national defense	623	6	16	11/77	10/73
Educational and nonprofit institutions	637	...	19	10/76	8/68	Obligations outstanding, gross unpaid					
Electronic and communications equipment	630	...	17	10/76	8/68	Defense Department, operations	644	...	20	6/76	8/68
Missile and space systems	627	...	16	10/76	8/68	Defense Department, procurement	645	...	20	6/76	8/68
Other hard goods	632	...	18	10/76	8/68	Defense Department, total	643	7	20	6/76	8/68
Services	635	...	18	10/76	8/68	Operations, Defense Department					
Ships	628	...	17	10/76	8/68	Net outlays	681	See Outlays.			
Soft goods	633	...	18	10/76	8/68	Obligations incurred	619	See Obligations incurred.			
Total	625	7	16	10/76	8/68	Unpaid obligations outstanding	644	See Obligations outstanding.			
Weapons and ammunition	629	...	17	10/76	8/68	Orders—See New orders and Unfilled orders.					
Work outside the United States	640	...	19	10/76	8/68	Outlays					
Defense and space equipment, output						Budget outlays for national defense function	683	11	25	11/77	10/73
Defense Department						Defense Department, operations	681	...	24	7/76	8/68
Gross obligations incurred—See Obligations incurred.						Defense Department, procurement	682	11	25	7/76	8/68
Gross unpaid obligations outstanding—See Obligations outstanding.						Defense Department, total	680	11	24	7/76	8/68
Military prime contract awards—See Contract awards.						Output of defense and space equipment	657	9	22	10/77	10/73
Net outlays—See Outlays.						Overtime hours, defense products industries	653	8	21	10/77	4/73
Personnel compensation											
Personnel—See Civilian personnel and Military personnel.											
Progress payments outstanding											
Direct defense expenditures											
Employment											
Accession rate, defense products industries											
Employment, production workers, defense products industries											
Employment, total, defense products industries											
Hours, defense products industries	671	10	23	10/77	4/73	Shipments, manufacturers'					
Layoff rate, defense products industries	670	10	22	10/77	4/73	Defense products	688	12	26	2/77	2/73
Overtime hours, defense products industries	673	See Hours.				Defense products industries	687	12	...	11/72	2/73
Personnel—See Civilian personnel and Military personnel.						Ratio, inventories to shipments, defense products...	693	See Inventories.			
Expenditures—See Outlays.						Ratio, inventories to shipments, defense products industries	692	See Unfilled orders.			
Federal purchases of goods and services for national defense						Ratio, unfilled orders to shipments, defense products...	691	See Unfilled orders.			
Gross national product						Ratio, unfilled orders to shipments, defense products industries	690	12	26	10/77	2/73
Federal purchases of goods and services for national defense	264	5	14	10/77	10/73	To Government, aerospace industries	689	12	...	—	
Gross national product	200	5	14	10/77	10/73	Transfers under military agency sales contracts	546	See Balance of payments.			
National defense purchases as percent of GNP	613	5	14	10/77	10/73	Unfilled orders, manufacturers'					
Gross obligations incurred—See Obligations incurred.						Defense products	681	9	22	2/77	2/73
Gross unpaid obligations outstanding—See Obligations outstanding.						Defense products industries	680	9	...	7/71	2/73
						From Government, aerospace industries	684	9	22	10/77	2/73
						Ratio to shipments, defense products...	691	12	26	2/77	2/73
						Ratio to shipments, defense products industries	690	12	...	11/72	2/73
						Unpaid obligations outstanding—See Obligations outstanding					

